DOCUMENT RESUME

ED 079 288 SP 006 704

AUTHOR	Buell, Charles E.
TITLE	Physical Education and Recreation for the Visually Handicapped.
INSTITUTION	American Association for Health, Physical Education, and Recreation, Washington, D.C.
PUB DATE	73
NOTE	69p.
AVAILABLE FROM	American Association for Health, Physical Education, and Recreation, 1201 16th St., N.W., Washington, D.C. 20036 (No price quoted)
EDRS PRICE	MF-$0.65 HC Not Available from EDRS.
DESCRIPTORS	Blind; *Partially Sighted; *Physical Education; *Recreational Activities; *Visually Handicapped; *Visually Handicapped Mobility

ABSTRACT

This booklet describes the visually handicapped in terms of what they can be taught in physical fitness programs. Part I presents a general overview of the blind, attitudes toward the blind, facts about blindness, and educational possibilities. Part II provides information to help personnel in all schools to organize adequate physical activity programs for visually handicapped youth. An annotated bibliography is included. (JB)

ED 079288

PHYSICAL EDUCATION AND RECREATION for the VISUALLY HANDICAPPED

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL BY MICROFICHE ONLY HAS BEEN GRANTED BY

NEA

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CHARLES E. BUELL
Physical Education Teacher
for Visually Handicapped Students
Long Beach School
Long Beach, California

SP 006 704

American Association for Health, Physical Education, and Education
A national affiliate of the National Education Association
1201 Sixteenth Street, N.W., Washington, D.C. 20036

FILMED FROM BEST AVAILABLE COPY

Copyright 1973 by the

American Association for Health, Physical Education,
and Recreation
1201 16th Street, N.W., Washington, D.C.

DEDICATION

It is to the principles and philosophy embodied in the credo of Abilities Incorporated, Albertson, Long Island, New York, that this publication is dedicated:

> I do not choose to be a common man. It is my right to be uncommon — if I can. I seek opportunity — not security. I do not wish to be a kept citizen, humbled and dulled by having the state look after me. I want to take the calculated risk; to dream and to build, to fail and to succeed. I refuse to barter incentive for a dole. I prefer the challenge of life to the guaranteed existence; the thrill of fulfillment to the stale calm of Utopia. I will not trade freedom for beneficence nor my dignity for a handout. I will never cower before any master nor bend to any threat. It is my heritage to stand erect, proud and unafraid; to think and act for myself, enjoy the benefit of my creations and to face the world boldly and say, this I have done.

FOREWORD

"We judge ourselves by what we feel capable of doing, while others judge us by what we have already done."

– Henry Wadsworth Longfellow

Best intentions of mice and men often go astray! Has society's desire to help persons with handicapping conditions also gone astray? Despite people's sincere desire to help impaired, disabled, and handicapped persons, their decisions and attitudes are too often motivated by sympathy, not empathy for the individuals being served. Experiences need to promote maximum independence in each individual so that he can function as independently as possible in the mainstream of society. For too long we have imposed our feelings, conceptions, and misconceptions upon handicapped persons. This is even reflected in the connotation of the word handicapped! Many individuals glibly labeled as handicapped by society do not look upon themselves in that way. As with any handicapping condition, misconceptions still abound about visually impaired persons.

Today the trend is to educate blind and visually limited children in public schools side-by-side with their sighted peers. Thousands of blind people work with sighted persons in a wide variety of occupations. Increasingly, blind and visually impaired persons of all ages are becoming the responsibility of public schools and community recreation departments. As still greater numbers of this group find their way into the community, the need for challenging programs will continue to grow. Federal and state legislation guarantees each individual certain inalienable rights. No one can be denied opportunities enjoyed by his peers because of a handicapping condition. Public attitudes are changing as persons with various handicaps are understood and appreciated as individuals with many talents and abilities.

This publication has been designed to help meet the needs of persons working with visually impaired participants in public schools, physical education, and community recreation programs; it can also be used by personnel in special programs for visually impaired persons. Regardless of background or orientation, professionals, paraprofessionals, volunteers, and parents will find this publication useful. It contains information about visual impairments; practical suggestions for active participation in physical education and recreation programs with minimum modification for various age groups; successful, easy to administer methods; and an extensive bibliography.

We are indebted to Dr. Charles Buell, a pioneer and one of the world's leading authorities on physical education and recreation for visually impaired people, for his personal and professional contribution on

developing the manuscript. Others to whom appreciation is extended include Laura E. Kratz, Bowling Green State University, Bowling Green, Ohio; Janet A. Wessel, Michigan State University, East Lansing; Victor Countz, New Mexico School for the Visually Handicapped, Alamogordo; Jim Johnson, Maryland School for the Blind, Baltimore; George V. Gore and Robert Long, Teachers College, Columbia University, New York, New York; Edward McDonald, East Lansing, Michigan; Philip Hatlen, San Francisco State College, San Francisco, California; and Terence Carolan, New York Institute for the Education for the Blind, New York City.

CARL A. TROESTER, JR.
Executive Secretary
American Association for Health,
Physical Education, and Recreation

PREFACE

At the present time, visually handicapped individuals have an increasing association with society and are acquiring constantly growing acceptance as useful members of that society. This is in sharp contrast to their degree of public acceptance not too many years ago. With this change in philosophy, a greater number of individuals with various handicapping conditions are now attending public schools and participating in community activities. Provisions are being made to meet their needs in regular and special classes and programs. As a result, greater numbers of instructors and leaders are coming into contact with impaired, disabled, and handicapped students than ever before. Physical educators and recreation personnel are being called upon increasingly to instruct and work with physically handicapped persons.

Physical education and recreation for visually handicapped persons do not differ greatly from programs offered to the majority of people. Of course, there are some unique problems. The more loss of vision a student has, the more he must depend upon his other senses to gain information. Methods used by visually impaired students are not difficult to understand. The biggest problem faced by many physical educators and recreation specialists lies within themselves, not the students. Many find it difficult to give up false concepts of blindness and adopt approaches which will really help the individual participant. Some teachers and recreation specialists have accepted the challenge. With an open mind they have done some reading or sought information from knowledgeable people and have had firsthand experience with one or more visually impaired students. With a healthy attitude toward, and respect for, the students, these teachers and recreation specialists have provided meaningful experiences that have aided visually impaired boys and girls to become useful adults in the community. Thousands of blind adults are employed in a great variety of jobs; so it can be done. Satisfaction gained from such successes is usually much greater for instructors of handicapped children than for those who teach non-handicapped boys and girls.

The teacher or other person instructing visually handicapped students is faced with a unique challenge. If he is a physical educator or recreation specialist, he has knowledge of the many activities and programs of his profession and is aware of the underlying principles of physical activity; he must acquaint himself with some unique methods or approaches and become aware of problems that lack of vision creates. If his training is in special education, he is aware of the needs of visually handicapped students; he must familiarize himself with the tools of physical activity and recreation. If he is a volunteer, paraprofessional, or parent involved in physical education or recreation for visually handicapped children, he may need resource materials on activities, methods, and approaches. All groups need methods concerning motivation, assessing progress, determining achievement or success, and evaluating attainment of goals.

It is to meet the diverse needs of these individuals that this publication is presented as a reference, a resource, or an immediate aid. Although this publication has been developed with public school and community personnel in mind, the contents also can be used by those in residential facilities or other specific programs for visually handicapped persons.

This book is divided into three parts: (1) What Physical Educators and Recreation Specialists Should Know About Blindness, (2) Activities for Visually Handicapped Children, and (3) Bibliography. Part I of the bibliography contains references on physical education and recreation for visually handicapped children; Part II provides references on blindness and the education of blind students. To help readers find practical information, most of the references are annotated.

The reader's attention is directed to approaches and methods which have been successfully used in programs of vigorous physical education for thousands of visually handicapped students in many public schools. Emphasis throughout is on useful, how-to-do-it information; theories, opinions, and small, one-teacher experiments are seldom mentioned. The aim is to assist the reader to locate quickly information he needs.

The best available information indicates that two out of three visually handicapped students in public schools are not being offered programs of vigorous physical activity. Thus, they are being denied opportunities to develop levels of physical fitness and motor proficiency needed to succeed in many of life's activities. To bring information to teachers in schools scattered throughout the United States, a well-publicized, inexpensive publication is needed. It is hoped that this booklet will meet that need.

Teachers everywhere should learn that loss of vision does not rob one of wisdom, health, stamina, strength, character, or personality. When given the opportunity, blind persons assume responsibilities and perform all duties of first class citizens. Visually handicapped individuals become dependent or second class citizens only when schools and society do not fully meet their obligations.

A survey of available literature leaves many gaps regarding physical activities and recreation for visually handicapped children in public schools and community programs. Many articles deal with visually handicapped persons' needs for physical activity; other articles relate experiences of individual physical educators who have taught this group. Some publications deal with several handicapping conditions and present general program concepts or emphasize a specific program area. There is a considerable amount of unpublished information available from individuals working with visually handicapped individuals and groups. These sources have been tapped and results included so others may benefit from success stories, promising practices, and exciting and productive experiences of others.

Bibliographical and resource materials have been gathered which heretofore remained random in their distribution. Some were confined to journals of certain groups, dedicated to one or several phases of teaching or rehabilitation of visually impaired persons, and were not easily accessible or well-known.

The American Association for Health, Physical Education, and Recreation and other organizations constantly receive requests for information on physical education and recreation for visually handicapped persons. In most cases, personal letters have been required to answer these requests because published material has not been available. Stemming then from many requests for materials and resources, recognizing recent developments, and admitting the dearth of material available in an organized and systematic basis, AAHPER presents this publication.

CONTENTS

PART I
What Physical Educators and Recreation Specialists Should Know about Blindness

Chapter 1
Pause Before You Say "The Blind Can't Do That" 3

Chapter 2
Attitudes Toward Blindness 7

Chapter 3
Facts about Blindness 13

Chapter 4
Educating Visually Handicapped Children 17

PART II
Activities for Visually Handicapped Children

Chapter 5
Evaluation and Physical Fitness 23

Chapter 6
Special Equipment and Teaching Methods 33

Chapter 7
Including Visually Handicapped Children in Activity Programs ... 41

Chapter 8
Recreation and Visually Handicapped Children 51

PART III

Annotated Bibliography 57

Part I

WHAT PHYSICAL EDUCATORS AND RECREATION SPECIALISTS SHOULD KNOW ABOUT BLINDNESS

Blind people differ from one another just as much as other human beings. There are problems commonly faced by those who have lost part or all of their vision which are different from those of sighted people. In addition, there are problems faced by the blind which differ from those of the partially sighted. Physical educators and recreation specialists should be aware of the main problems and how they are being solved.

Problems of blindness can be divided into three groups. They are, in descending order of importance: (1) the attitudes of people around impaired, disabled, and handicapped persons, such as parents, teachers, and the public; (2) attitudes of those with handicapping conditions themselves; and (3) the physical loss, complete or partial, of vision. Helen Keller once said, "Not blindness, but the attitude of the seeing to the blind is the hardest burden to bear." It still is, according to most blind people. An individual's self-image is formed from feedback from those close to him. If parents and teachers protect a child from every bump and do not expect him to do things for himself, he is likely to regard himself as dependent upon others. Millions of visually handicapped people have adjusted to their physical loss of vision; it was within their power to do so. Unfortunately, it was not within their power markedly to change prevailing attitudes of the public toward them.

CHAPTER 1

PAUSE BEFORE YOU SAY "THE BLIND CAN'T DO THAT"

Senator Jennings Randolph (Dem., W.Va.) said, "The concept of restoring the handicapped to normal useful lives and gainful employment is well accepted, well established, and of proven practicality for those closely involved with the handicapped." It is not, in this writer's opinion, generally accepted by the public.

The reader, like most people, probably grew up with false notions about blindness. It is hoped that this publication will demonstrate the feasibility and desirability of giving all impaired, disabled, and handicapped persons the assistance they need to live normal, independent lives.

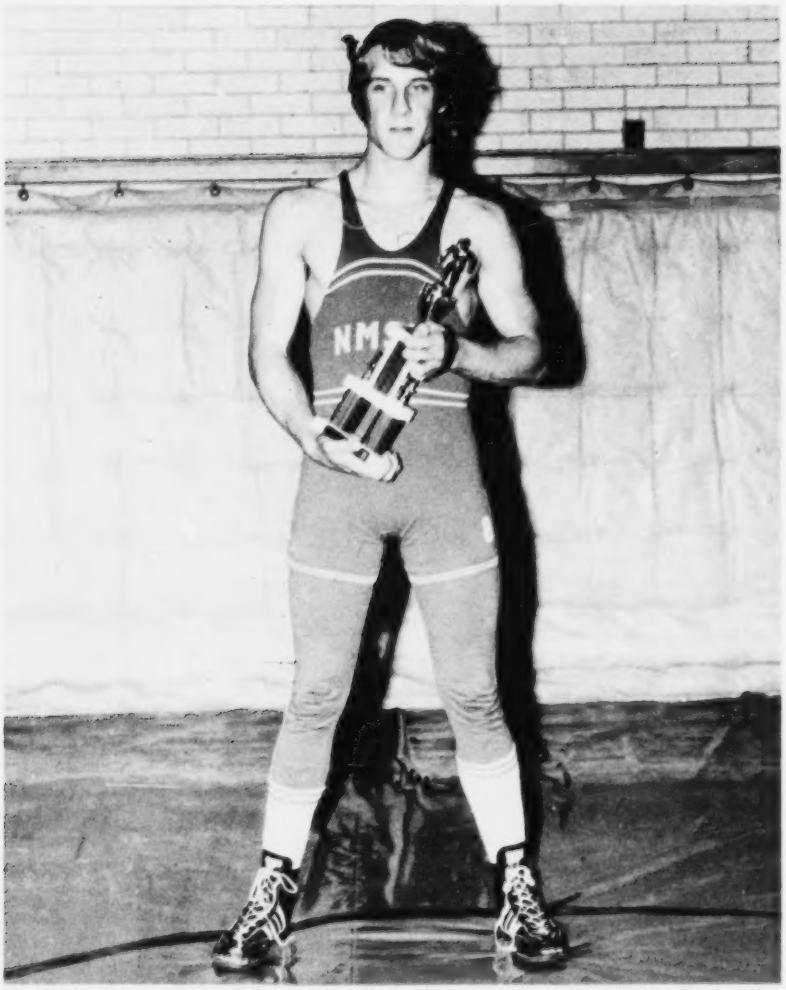
With some obvious exceptions, a blind person can do anything anyone else can. Laws prohibit blind people from driving automobiles but not from working as mechanics in auto repair shops. An employer would not hire a sightless photographer, but could use him in processing film, negatives, and prints in the darkroom. Although vision is necessary to perform certain tasks safely and well, public laws and private employment practices bar visually handicapped persons from thousands of jobs which they can perform safely and proficiently. A large segment of the public denies those with handicapping conditions the right to try.

Fortunately, some enlightened employers hire blind people, who often achieve much more than is commonly believed possible. The following are only a limited number of cases that can be cited here:

- Sonny Yates of California is totally blind. At the 1968 Pan American Games he placed second in sky diving by receiving directions from the ground through a radio located in his helmet.
- Sightless Sven Nahlin earns a living in Sweden as a scuba diver. A few years ago he taught 10 blind Americans to dive. They, in turn, taught 1,400 sighted Swedish children to scuba dive. In the United States there is a law prohibiting sightless persons from becoming scuba diving instructors. In spite of this, blind people have clearly demonstrated that they can do more than tread water.
- Bill Thielke is different from the average radio and TV shop owner. His blindness doesn't prevent him from climbing a ladder and putting up television antennas for customers.
- Chuck Medick of Long Beach, California has "seen" and reported thousands of youth baseball games as a professional sportswriter.
- Norman Smizer finds he does not need vision to build motors for midget racers in New Jersey. Sightless Rudy Salazar is employed as an auto mechanic by a garage in California. In Beaverton, Oregon a firm employs Perry Daggett to operate a speed lathe.
- John McCraw leads singing, directs crafts, and organizes games for the Recreation Department of Baltimore, Maryland. His work takes him on public transportation to all parts of the city.
- In California, a dairy with 200 milking cows is owned and operated by a sightless man, George Gioletti. He says, "Each new county inspector has to be convinced that my dairy meets Grade A milk standards."

A few years ago, eight blind climbers, accompanied by four sighted guides, hiked through treacherous country to reach the 19,340 foot peak of Mt. Kilimanjaro. This feat stimulated a group of 16 English men and women to climb the highest mountain in their country, Ben Nevis. Blind high school boys have hiked 22 miles from the South to North Rim of the Grand Canyon in Arizona.

- Sixteen students from the Maryland School for the Blind recently climbed Backbone Mountain, Maryland's highest peak. In each of the last two March of Dimes Walk-A-Thons held in Baltimore, 22 blind boys and girls from the state school finished the entire 25-mile distance.
- Each year about 25 blind and partially seeing wrestlers are among the top five placers in various state high school wrestling tournaments. Lloyd Frees and Stan Wray of Michigan, Steve Delaney of Virginia, and Tim Kailey of New Mexico are visually handicapped wrestlers who have won national honors by being named on the All-American Team of *Scholastic News* and the Interscholastic Honor Roll of *Amateur Wrestling News*. The Virginia School for the Deaf and Blind has won the state wrestling championship in its division for the last two years, and the Maryland School for the Blind finished with 12½ points in its first year of competition in the state wrestling tournament.
- A blind man, King Nawahi, swam 26 miles from Catalina Island to the mainland of California. Two years ago, Lois Wiley of Oak Park,



Tim Kailey with trophy for being named to the national honor roll of high school wrestlers for 1972.

Illinois won a national bridge championship using Braille playing cards.

- Thousands of visually handicapped persons bowl. Jenny Reeves, a sightless bowler, rolled a three-game set of 454 at the 1965 International Bowling Congress Tournament.
- Tommy Fowle of California and a few other blind persons pilot private planes; they are directed by a pilot aboard. This is really flying blind!
- Partially sighted Elwin Kelsey and his partner placed fifth in the National Junior Pairs ice skating competition not too many years ago.

Every winter finds blind skiers on the slopes. Mark Blier of American

International College follows a sighted companion who has bells attached to his ski poles.

Although Charles Boswell of Birmingham, Alabama, lost his vision in World War II, he fired a hole-in-one on a 147-yard par 3 hole.

Over 350 blind teachers instruct sighted children in the public schools of our country. Among them is Principal William Schmidt of Temple City, California. As an avocation he puts automobile motors together and has built a mountain cabin. Schmidt believes that being blind is not a matter of having the lights turned off, but rather of adjusting to one's environment.

Chapter 2

ATTITUDES TOWARD BLINDNESS

Attitudes held by many educators and much of the general public place many more limitations upon activities of visually handicapped individuals than the actual loss of vision. About two-thirds or 8,000 of the visually handicapped children attending public schools are excused from physical education or given watered-down courses. As adults, many blind persons must accept pensions or work in industries subsidized by the government. Helen Keller said, "The curse of the blind is not blindness, but idleness." These conditions exist because so much of the general public feels that a blind person is inferior and must be protected. Fortunately, however, a segment of the general public is enlightened, and despite attitudes based upon misconceptions, blind people are permitted to work and succeed in many different occupations. They also participate in a variety of recreational and vocational activities, including sports.

Attitudes of Family and Public

The family is a mirror of society. Attitudes commonly held by the public are found in families of many visually impaired persons. For example, many parents shield their children from bumps and overprotect them in other ways. By making life unusually easy for their children, parents overlook the importance of firsthand experiences — including bumps and bruises — in the learning process. When a child is encouraged to be passive, the condition can negatively influence his total development, attitude, and drive in later years.

Some parents of blind children not only react negatively to a child's blindness but to the child as well. After the initial shock reaction, parents can very easily develop deep-seated guilt feelings. In attempting to overcome these feelings, they may overcompensate by becoming overprotective, which results in much idleness and lost opportunities to learn for the child. Still other parents completely ignore or reject their visually handicapped children.

A blind child who enters a classroom is, like any other child, a product of his environment. For a large percentage of blind children, the environment is different from that of their sighted classmates. Personal relationships of most visually handicapped children have been affected to some extent by people's reactions to their impairment. Of all handicapping conditions, blindness appears to arouse the strongest feelings of fear and anxiety. Blind persons live in a society which views blindness as a tragedy. Sighted people often equate blindness with death even though hundreds of thousands of visually handicapped people have learned to live with

loss of vision. There still exist prevailing beliefs that blind people are helpless, unhappy, and impoverished. Too many blind people live in an environment where their capabilities are underestimated and untapped. Because of the influence of these attitudes, many of them do not realize their full potentialities. On the other hand, some people believe blind persons are geniuses with superior powers of sensory compensation — the sixth sense fallacy. Fortunately, realistic appraisal of blindness is very slowly becoming more common by the public.

These same prevailing attitudes are often found in public schools. Rather than openly express their basic fear of blindness, administrators and teachers frequently try to justify school policies by stating beliefs not based upon fact. Four such notions, all false, are:

Blind children have more accidents and injuries than those with normal vision.

Blind children are unable to participate effectively in regular or adapted physical education activities.

Blind children require more supervision from teachers than those with normal vision.

Blind children are shunned or not accepted by their classmates.

Unfortunately, these misconceptions often result in indefensible practices. For example, in physical education for blind students, such widespread practices include: excusing students altogether from the program; giving unearned marks for playing table games; and allowing blind children to keep score for sighted classmates, give out towels, equipment, or other supplies, and take part in passive and unchallenging activities. In one school students received marks for merely standing outside the gym door day after day!

Accidents to blind children should be of no more concern than to other children. Thousands of sightless children have participated safely in vigorous physical education activities in residential schools for the blind for more than 100 years. More than 135 years ago Samuel Gridley Howe, a pioneer educator of the blind, said, "Do not too much regard bumps upon the forehead, rough scratches or bloody noses, even these may have their good influences. At the worst, they affect only the bark, and do not injure the system like the rust of inaction."

No credence can be given to the argument that blind children cannot participate effectively in vigorous physical activities. Genevie Dexter, a consultant in physical education of the California State Department of Education, says, "From observation, informal reports, and the lack of statistical data, there is no evidence in California that blind children have any more accidents than their seeing peers." At present approximately 4,000 visually handicapped children are safely participating in vigorous physical education programs in public schools throughout the United States. The personnel in these schools have not found more accidents among blind children than among seeing boys and girls. The fact that thousands of other children remain idle, or relatively so, is because of lack of information about blindness and physical education by adminis-

trators, teachers, parents, and the public. It is hoped that this booklet will convince school personnel to take a positive, rather than a negative, approach toward blindness.

Attitudes of Teachers and Parents

A blind child in a physical education class need not necessarily require more supervision from the teacher. Many schools, including Indian Hills Junior High School, Shawnee Mission, Kansas, pair a blind child with a classmate with normal vision. The sighted children learn to give assistance only when required by their visually handicapped classmates. In the beginning, a sightless child must be shown to his locker, the activity area, and the shower. After a few days, he is usually able to get to class by himself. It may be necessary to assign key, rather than combination, locks to blind students.

During activity periods teachers demonstrate skills, movements, and patterns for the class. Teachers can use a blind child as a subject for the demonstrations. In this way he can get the feel of the movements. Otherwise, a sighted companion can pass on the necessary information to his visually handicapped classmate. A devoted teacher may wish to give a blind child brief instruction before or at the end of a class period. In any event, a blind or partially seeing child does not require much extra time from the teacher. Additional supervision is not the barrier to a child's participation in a physical education class — it is more likely to be the teacher's attitude toward blindness.

Some reading and careful thought can do much to change attitudes. Parents, educators, and recreation specialists who attempt to analyze honestly their reactions discover that negative feelings toward impairments, disabilities, and handicaps in general do not necessarily elicit a similar reaction to a visually handicapped child. When one looks beyond the condition, he finds that visually impaired boys and girls are much more like other children than they are different. Despite some limitations upon a child's sensory input, his abilities are very similar to those of his sighted peers. However, in some cases different methods must be used to accomplish the same goals.

Blindness is not a tragedy; rather it is a nuisance that can be compensated for or overcome. Parents and teachers should encourage and help blind children lead active lives among their sighted peers. They should honestly evaluate a visually handicapped child's abilities and allow him to try anything within reasonable reach. Every human being, including one who is blind, is entitled to the right to try, to fail, and to reach his full potential. One cannot develop or succeed if he is not given the opportunity to try. Teacher and parental attitudes should be based on the premise that a blind child is entitled to all of the rights and privileges that other children should have.

It is important for a teacher to let children know that he has confidence in them and their abilities. It is particularly desirable for a teacher to let those with handicapping conditions know that he expects good performances from them. Positive expectations tend to bring out the best in

any child. A wise teacher emphasizes abilities, not disabilities; encourages, doesn't discourage; and accentuates the positive, not the negative.

Attitude Recently Changed To Law

Section 904 of the Education Act Amendments of 1972 states:

> No person in the United States shall on the ground of blindness or severely impaired vision be denied admission in any course of study by a recipient of Federal financial assistance for any education program or activity but nothing herein shall be construed to require any such institution to provide any special services to such person because of his blindness or visual impairment.

Under the law, visually handicapped individuals have the right to enroll in any course, including physical education, which is offered in school districts and colleges receiving financial assistance from the federal government. Finally, attitude has been changed to law.

Attitudes Of Blind Persons Toward Blindness

Attitudes of a blind person toward blindness are crucial in determining success or failure in life. His attitudes are determined by those closest to him, his parents and teachers. It has been said, "What you think of me, I'll think of me; what I think of me, will be me." Parents and teachers must obtain the truth about blindness so that healthy attitudes will develop.

If people have respect for, and confidence in, a blind individual he will more likely develop a positive self-image. He will view blindness as an impairment or disability which will not prevent him from living a happy, independent, and productive life. A blind person with this viewpoint can be educated and trained to his fullest potential.

If a blind person's philosophy toward his impairment is similar to that of the public's, he is more likely to feel inferior and may withdraw within himself. He may lack motivation to learn in school and to try in other aspects of life. He may feel the world owes him a living and therefore resort to begging. Government pensions are available to legally blind people; those who beg do so by choice. Blind beggars weaken the image which capable blind persons are trying so hard to improve. Some cities, such as Salt Lake City, Utah, do not allow blind beggars to remain in town.

Blindness As Ability, Not Disability

Attitudes of blind persons and others toward blindness are of utmost importance in determining success or failure in programs of education, recreation, and rehabilitation for visually handicapped individuals. Understanding blindness assists doubters to become positive thinkers and doers. Information on how to overcome blindness is available, and more people involved with blindness should make use of it.

Courtesy Suggestions

Here are some points of courtesy to make relationships more comfortable between blind and sighted individuals:

1. Please address me directly and not through my guide or companion.
2. I can walk more easily with you than with a dog or cane. But don't grab my arm or try to propel me; let me take yours. I'll keep a half step behind, to anticipate curbs and steps. Going down stairs I may prefer to hold a railing. When giving me directions, make it plain whether you mean your right or my right.
3. Speak to me when you enter the room and tell me who you are — don't play guessing games. Introduce me to the others, including children. Guide my hand to the arm or back of a chair.
4. For me, doors should be completely closed or wide open — a half-open door is a hazard; so are toys on the floor. Warn me of coffee tables and projecting lamp shades — I hate to break things.
5. At dinner time, tell me quietly how things are arranged. Perhaps my meat will be at six o'clock, peas at eleven o'clock, potatoes at two. And I may ask help in cutting my meat.
6. Don't avoid words like "See" — I use them too! I'm always glad to see you.
7. I don't want pity. But don't talk about the "wonderful compensations" of blindness — whatever I've learned has been by hard work.
8. I'll discuss blindness with you if you're curious, but it's an old story to me. I have as many other interests as you do.
9. If I'm your house guest, show me the bathroom, closet, dresser, window, and the outlet for my electric razor. The light switch, too; I like to know whether the lights are on.
10. Don't think of me as a blind man. I am a man who happens to be blind.

Chapter 3

FACTS ABOUT BLINDNESS

What Is Blindness?

Definitions of blindness range from complete loss of sight to various degrees of residual vision. The most commonly accepted definition of blindness is "central visual acuity no greater than 20/200 in the better eye with correction." The term 20/200 means that a visually handicapped individual sees at 20 feet what a person with normal vision sees at 200 feet. This is known as legal blindness, and makes one eligible for public assistance and income tax exemption. Most people with vision below 20/200 have some useful vision, if only ability to distinguish between light and dark. Others can follow sidewalks as they walk and sometimes see red and green traffic lights. Still others can read large type or regular type with magnifying glasses.

For most educational purposes the standard of 20/200 is used to define a blind child. Such a child usually uses Braille, but he may read large print and be enrolled in a sight utilization class.

Many public schools have classes for partially sighted youngsters with visual acuity between 20/200 and 20/70. Partially seeing children may use large print or read regular type with magnifiers. Some can read regular print without glasses of any kind if the lighting is proper.

The American Foundation for the Blind prefers that the term *blindness* be reserved for a complete loss of sight, with all other degrees of visual loss considered *visual impairments*. This definition is the most meaningful for physical educators and recreation personnel particularly if *visual impairment* and *partially sighted* are used interchangeably.

It is estimated that there are 450,000 legally blind people in the United States. There is wide variation in the age of the onset of blindness. Some individuals have no memory of what things look like; others become blind at various times — during childhood, after becoming established in a vocation, or during later years. Studies indicate that blindness is largely a problem of old age — about three-fourths of the blind are over 40 years of age, and three-fifths have reached the age of 60 before losing their vision. Over 20,000 children read Braille and large type books from the American Printing House for the Blind. Over 60 percent of these children attend public schools while the rest are in residential schools for the blind.

Vision is a blessing even if possessed for only a short time. Children who lose their vision after five or six years of age do not have as much difficulty adjusting to physical and recreation activities as those blind

A blind child "seeing" an Olympics medallion. PHOTO: Rich Faverty

from early childhood. The age at which vision is lost definitely influences one's mental outlook. The onset of blindness means one thing to a child and something else in later years.

Causes of Blindness

The most common causes of blindness are diseases, accidents, and heredity. To be more specific, cataracts, atrophy of the optic nerve, glaucoma, venereal disease, and diabetes, cause much blindness. It is estimated that 35,000 people lose their vision each year, and that one-half of this number could be prevented.

Physical educators and recreation personnel should know that only a very small percentage of students have had to be assigned light activities. tions which might be endangered by vigorous activity. Extensive experience of personnel in residential schools for the blind shows that only a very small percentage of students has had to be assigned light activities. Of course, school personnel must check eye reports and student records before permitting vigorous physical activity.

Only a few articles on sports and vision have been written by ophthalmologists. One article by Dr. Griffin Allen of Cleveland has pointed out that schools which do not permit visually handicapped children to take part in physical education, usually increase, not decrease, problems for these youngsters. He has found that not nearly as many restrictions had to be placed on the activities of myopic children as was once thought necessary. They can safely dive into water or fall or be thrown to the mat or turf. Resulting jars are distributed over the entire body, so no undue stress is placed on the eye and there is little likelihood that a retina will detach. Should a retina be torn loose, the chances are very good today that it can be reattached so that normal visual functions can continue. Precautions should be taken to prevent direct blows to the eye by fingers, elbows, or small balls.

Sometimes students get so much correction from glasses that their performance in vigorous athletics is markedly decreased when the glasses are removed. Such children should be provided with special plastic or case hardened safety lens to withstand rugged treatment. If the parents cannot afford such glasses, the physical educator might contact the PTA or local service club to obtain the necessary funds.

Ophthalmologists and physical educators need to exchange information. Physicians have a responsibility to inform themselves about goals and activities of physical education programs for visually handicapped children. Informed physicians will encourage blind children to participate in vigorous physical education activities, except in those few cases where physical conditions do not permit.

Aids for Blind and Visually Impaired People

Many people with residual vision are able to read, using such optical aids as hand magnifying glasses or heavy spectacles. Today there are low vision clinics in almost every large metropolitan area.

Reading machines somewhat similar to television sets enlarge print a great many times and make it possible for some people with much less than 20/200 visual acuity to read regular print. However, these machines are very expensive for individuals to buy.

A small percentage of blind people travel with guide dogs. Many use canes or walk with sighted companions. Most electronic devices designed to assist blind persons to travel have not been sufficiently perfected to be of real value. The same can be said of electronic reading machines which turn ink print letters into sound or dots.

Many aids are helpful to the blind in the shop, kitchen, and around the house. A local agency for the blind will give information on aids of this type.

Braille is a system of dots read by the fingers. Much Braille material is furnished blind individuals free of charge. Talking books — long-playing records — and, more recently, books recorded on magnetic tape make available much more reading material for visually handicapped persons. Books, magazines, and at least one newspaper are now printed in large type by commercial firms and some organizations for the blind. All of these aids can be borrowed from libraries for the blind located throughout the country. Special education instruction materials centers at the American Printing House for the Blind (1839 Frankfort Avenue, Louisville, Kentucky 40206) and at Michigan State University (USOE/MSU IMC for Handicapped Children and Youth, 213 Erickson Hall, Michigan State University, East Lansing 48823) have special collections and services available for personnel working with visually handicapped individuals and groups. The American Association of Workers for the Blind (1511 K Street, N.W., Washington, D.C.) has a comprehensive materials catalog listing devices as well as printed resources.

Blind People Are Not Amazing

Blind persons are not amazing; rather, they make better use of their remaining senses than most people. A blind person does not have acute hearing automatically. Since he depends on sound cues to get information, he pays more attention to sounds than most sighted people.

Blind people can handle one, five, and ten dollar bills, even if they cannot see the numbers. When told by a sighted person what each denomination is, they fold each bill a certain way according to its denomination. Recently when the federal government tried to devise a system to help blind people identify bills, one blind man expressed the thoughts of many in saying, "Blind people need an opportunity to earn money. Once they get it, they can usually find a way to handle it."

A sightless person cannot tell color by touch. In dealing with clothes, for example, he will ask a sighted companion to tell him colors of socks. He then places red pairs in one corner of the drawer, blue in another, orange in another, and black in still another. A guide dog cannot distinguish colors either; he and his master work together through traffic sounds when traveling. It is interesting to note, however, that researchers in Russia are close to showing that color can be determined by touch.

Acts of blind people which appear amazing to some people are simply common sense procedures. Information is obtained through touch and sound cues which have no importance to those who have sight.

Chapter 4

EDUCATING VISUALLY HANDICAPPED CHILDREN

In the United States two basic approaches are used to educate visually handicapped children: (1) residential facilities, and (2) special classes and integration into regular classes in public schools. Residential schools have conducted education programs for visually impaired children since 1832. Formal classes for blind and partially seeing pupils were introduced in the public schools of our country about 70 years ago. Until World War II only 10 percent of legally blind students attended special classes in public schools. Since that time, sweeping changes have taken place in educational programs for visually impaired children. Today over 60 percent or 12,000 blind and partially seeing pupils attend special classes in public schools. The percentage varies widely from state to state. For example, in California 90 percent of blind and partially seeing students receive their education in public schools, while in the southeastern states from 10 to 20 percent are educated in this manner.

There are advantages and disadvantages to each system of education. In residential schools, boys and girls are likely to miss many contacts with sighted children unless the personnel organize extensive programs for this purpose. Most residential schools have adequate programs of instruction in mobility, physical education, industrial arts, homemaking and daily living skills. Some public schools now have adequate programs in all of these areas, but many schools lack one or more such programs. However, more and more public schools are accepting their responsibility to offer complete educational programs to visually impaired students.

Whether a visually handicapped child should attend his local public school or go to a state residential school depends upon a number of factors. In fact, it might be desirable to educate a boy or girl in one system during a certain period of his life and then change to the other system.

Purposes of educating boys and girls do not differ whether or not they are impaired, disabled, or handicapped. Methods and approaches may differ but not basic philosophy. A school's responsibility is to educate each child to become as independent as possible and take his place and function effectively in the adult world. It is desirable for visually handicapped children who can benefit from regular classroom instruction to do so. Such experiences can be a realistic preparation for living as adults in a seeing community.

Educating Visually Handicapped Students in Public Schools

Most visually handicapped students need some assistance to keep up academically with their seeing classmates. Teachers especially trained

to meet needs of visually handicapped children should be, and usually are, employed to teach blind and partially seeing boys and girls. Additional expenses of transportation, Braille and large print books, Braille writers, and other such equipment, are usually supplied to school districts through state and federal governments. Thus, to give visually handicapped children an adequate education should cost most school districts no more than educating children with normal vision.

Experience has shown that with additional assistance, most visually handicapped boys and girls can be trained to earn respectable livings in adulthood. The aim is to train useful citizens, rather than individuals who will be wards of society and given pensions by the government. To aid blind students achieve this goal, their teachers must truly believe in this basic concept.

Basically three approaches are used in public schools to educate blind and partially seeing boys and girls: (1) self-contained classes, (2) resource rooms, and (3) itinerant teachers. In the self-contained class, students receive all their formal instruction in one room. This room contains necessary special books and equipment and devices, and should be well lighted. Boys and girls are transported, usually by taxi or mini-bus, from all parts of the city to the school where this class is located. Visually handicapped students in self-contained classes usually have little contact on the campus with boys and girls of normal vision.

In the resource room approach, a visually handicapped child is assigned to a regular classroom and spends most of his time there with children who have normal vision. Transportation is provided to the site of the resource room. The special room and teacher are available to meet specific student needs. Resource teachers usually give instruction in Braille, arithmetic, typing, and the use of large print and magnifiers. Typing is essential to these children and is usually introduced in the fourth grade. Resource teachers also interpret the program to other teachers, principals, other school personnel, and parents. Often special teachers will find it necessary to prepare Braille or large type materials for students to use in their regular classrooms.

In itinerant programs, the blind or partially seeing students attend neighborhood elementary or secondary schools and receive individual assistance from a specially trained teacher on a scheduled basis. During the day, an itinerant teacher travels from school to school. Students in this program receive the same type of service and equipment as do those in the resource room. Itinerant teachers usually serve partially seeing students who only need large type books or special equipment, not individual instruction.

In recent years special teachers have been relieved of much transcribing. Many school districts have employed trained people to prepare materials in Braille and large type. In many places volunteers perform these valuable services.

Some states have special funds available to employ readers for the blind. Often readers are classmates who are familiar with the material and wish to earn money.

PHOTO: Lyonel D. Avance, Los Angeles
City Board of Education

More and more public schools are employing specially trained instructors to teach orientation and mobility. The goals of this training are to provide students with necessary mechanical and conceptual skills to become safe and independent travelers in varied environments. Obviously, participation in an active and vigorous physical education program will do much to prepare students for mobility instruction.

Some public schools are accepting their responsibilities to teach living skills to visually impaired boys and girls. At present, however, this is usually done in summer school sessions. Instruction is given in housekeeping, cooking, care of clothing, sewing, use of tools and materials for making household repairs, physical activities and recreation. Many special methods and materials which blind people can use to aid them in their duties about the house are also introduced. Some blind individuals find certain products on the open market easier to use than some special devices. In any event, many blind wives do all their own housework and most sightless husbands take care of common household chores and repairs.

The general curriculum for the visually handicapped youngsters is not different from that for children with normal vision. Fulfilling class requirements may be done by reading Braille or large print and by listening to recordings, tapes, or cassettes. Teachers should make it possible for students to examine models and all sorts of specimens by touch. The range of vocational offerings may include instruction in homemaking, electronics, and shop courses with the use of power tools. Blind students, with the help of sighted classmates, should be expected to work in science laboratories. Visually impaired students should take an active part in school physical education, recreation, and camping programs.

The average blind student is likely to be educationally retarded a few months or even a year since it is often more difficult for him to obtain adequate concepts and experiences at the same age as his sighted classmates. There are, however, some very intelligent blind students as well as some who are mentally retarded. The latter type of student should be educated in classes for mentally retarded children and given assistance on a scheduled basis by a resource or itinerant teacher of visually handicapped students.

Ophthalmologists tell us that whenever possible, students with any degree of residual vision should be encouraged to use the visual avenue to enrich tactile learning experiences. Obviously school personnel have an obligation to provide good lighting for all students, particularly those who are visually impaired. Fluorescent fixtures are an excellent way to provide adequate lighting.

It is the responsibility of schools to contribute to the fullest possible development of the potentialities of all boys and girls, including those who happen to be visually impaired. Since educating visually handicapped children in all respects, physical and mental, is feasible, it remains only for all schools with blind or partially seeing children to organize and carry out complete programs of instruction and training.

Part II

ACTIVITIES FOR VISUALLY HANDICAPPED CHILDREN

All children are entitled to physical education programs designed to meet their special needs. Nearly all blind children need programs and activities to develop high levels of physical fitness. Impaired, disabled, and handicapped students need well-balanced, imaginative physical education programs to help them become useful, contributing members of society. A blind child can get proper training most of the time by being intelligently integrated into regular physical education classes or units. If a blind child is not getting sufficient vigorous activity during a class period, he should be assigned individual exercises for the duration of that period.

Some public schools and nearly all residential schools for the blind provide adequate physical education opportunities for visually handicapped students. Unfortunately, thousands of visually impaired children in public schools receive no physical education or are assigned activities which develop little in terms of physical fitness. The material on the following pages is presented to provide information to help personnel in all schools to organize adequate physical activity programs for their visually handicapped youngsters.

Chapter 5

EVALUATION AND PHYSICAL FITNESS

When a visually handicapped child enters a physical education class, the teacher needs to obtain information on his physical capabilities, including overall motor ability and physical fitness level. Information can be obtained from the resource or itinerant teacher who, if possible, should be present when the visually impaired child first enters the physical education class and, if needed, for a few days afterward. Physical education teachers can learn a great deal about a blind child's orientation ability by observing him enter the class. More can be learned by observing his reactions to various pieces of equipment. Does he know what each one is? Does he know how to use each one? Is he willing to experiment and find out? In this way a physical educator gains some general impressions of a blind student's capabilities, strengths, weaknesses, accuracy in mobility, coordination, courage, willingness to explore, receptiveness to instruction, confidence, self-image, and many other physical and personal traits.

The teacher may then wish to explore other activities with a student. He may, for example, ask a child to run a short dash (using methods described on page 35), do sit-ups, push-ups, pull-ups, or a standing long jump. If swimming is part of the program, the teacher may ask a blind student to enter the shallow end of the pool and observe his reactions. A mobile boy or girl has no difficulty walking or swimming around a pool and locating the diving board; a hesitant, timid, or frightened student needs someone to show him around the pool in great detail. This discovery or exploration approach enables a teacher to learn much about each visually handicapped child. Physical educators are then in much better positions to organize activity programs to meet the needs of each visually handicapped youngster.

The facts on blindness discussed on pages 13-16 should be kept in mind by each instructor as he becomes acquainted with different visually handicapped students. A great deal of observation and experimentation may be required to understand what each child with some useful vision can see and what he cannot see. Partially seeing youngsters may be able to see some things under one set of light conditions and not under another. Also, children with similar eye reports often do not see things in the same way since some make much better use of their vision than others. Physical educators should encourage each child to use as much vision as possible, and be wary of the reasons some students give to be excused from certain activities. It is reassuring to know that only a small percentage of visually handicapped children have eye conditions which could be endangered by vigorous activity.

Physical Fitness

Physical fitness is important for everyone, but blind individuals have a special need for high levels of strength, endurance, balance, coordination, agility, and stamina if they are to lead active lives. The constant alertness and additional effort required by even routine activities are tiring. Large amounts of energy are expended in finding objects about the home or classroom by touch. Even in dusting or cleaning a floor a blind person must work harder to know when the task is completed. Since a visually handicapped person must work harder to reach the same rung of success as his sighted peers, he needs a vigorous program of physical activity to give him a superior level of physical fitness.

Usually blind boys and girls can be, and are expected to be, as physically fit in many areas as children with normal vision. A physical educator should expect a visually impaired child to meet norms for all children in such activities as pull-ups, flexed arm hang, squat-thrusts, standing long jump, standing high jump, and standing triple jump. A blind child should not be expected to meet norms for children with normal vision in running and throwing events. In fact, many blind children throw so poorly that it is advisable to use other activities, such as flexed arm hang, push-ups, or rope climbing, to test and develop arm-shoulder strength and endurance.

At left is Murray Dimon, who is believed to be the first (and, to date, perhaps the only) totally blind runner to earn a letter in cross-country. He is demonstrating tandem running in which a blind runner is paired with a sighted one.

Since visually handicapped children seldom come to the attention of physical educators, an objective measurement to evaluate fairly their abilities is needed.

Separate norms for blind and partially seeing boys and girls, ages 10 to 17 years, are presented on pages 26-30 for the 50-yard dash and 600-yard run-walk. Surveys show a distinction between the capabilities of blind and partially seeing youngsters on running events and similar activities. In addition to these norms, Charles Buell has developed achievement scales in such activities as swimming, rope jumping, and rope climbing.[1]

Buell's achievement scales are based on the performance of a representative sample of about 3,000 visually impaired boys and girls. Experience has shown these norms to be functional, appropriate, and reasonably accurate for visually handicapped youngsters in public schools and residential facilities.

By comparing a student's percentile or normative scores in various events, his strengths and weaknesses can be determined. Achievement scales can be used as motivational devices since most students are interested in comparing present with previous performances to determine improvement. It is also possible to use achievement scales to conduct fair competition between visually handicapped and nonhandicapped children.

It is just as difficult for a blind child to achieve the 50th percentile on an achievement scale developed for him as it is for a student with normal vision to reach the 50th percentile on his scale. A rating of each child's physical performance, progress, and development should become a part of his permanent record.

Adapting the AAHPER Youth Fitness Test

There are seven events in the AAHPER Youth Fitness Test — pull-ups, (flexed arm hang for girls), sit-ups, 50-yard dash, shuttle run, standing long jump, softball throw for distance, 600-yard run-walk. Regular norms for pull-ups, flexed arm hang, sit-ups, and standing long jump should be used for testing visually handicapped children. Separate norms for visually handicapped boys and girls are shown in achievement scales for the 50-yard dash and 600-yard run-walk on pages 26-30. These events and their norms provide physical education teachers with an accurate assessment of performance and achievement in selected elements of fitness for visually handicapped youngsters.

AAHPER has given permission to award regular crests, chevrons, and certificates to visually handicapped boys and girls who meet recommended Youth Fitness Test standards in pull-ups, flexed arm hang, sit-ups, standing long jump, and special norms in the 50-yard dash and 600-yard run-walk. To receive a Merit Award and rating, a child must pass each event at the 80th percentile or above; to receive an Achievement Award

---

[1]Charles Buell, *Physical Education for Blind Children* (Springfield, Ill.: Charles C. Thomas, 1966).

and rating, a child must pass each event at the 50th percentile or above. Sighted children should recognize that it is just as difficult for visually handicapped students to earn fitness awards as it is for them.

Substitutions in the AAHPER test are possible. Using regular norms in squat-thrusts and push-ups or Buell's achievement scales in the basketball throw create adequate substitute test items for the shuttle run and softball throw.

The role of throwing in the physical education program of blind children is subject to some debate. Some of the questions are: (1) Is it important that blind children learn to throw? (2) Are there enough throwing opportunities in adult life to warrant teaching blind students? (3) If throwing is taught, should it be considered a test of arm strength and endurance or a test of thrust and coordination?

If an activity must be modified a great deal before a student can participate, it should not be used. Such is the case with the shuttle run for blind students. The event is more feasible for partially seeing students, but even some of them will find it difficult to perform correctly.

ADJUSTED NORMS FOR BLIND AND PARTIALLY SEEING GIRLS

50–Yard Dash For Blind Girls

Percentile	10 Yr.	11 Yr.	12 Yr.	13 Yr.	14 Yr.	15 Yr.	16 Yr.	17 Yr.	Percentile
100	8.4	8.1	7.8	7.4	7.4	7.5	7.3	7.5	100
95	9.0	8.7	8.4	7.9	7.9	8.0	7.8	8.0	95
90	9.5	9.1	8.8	8.3	8.3	8.4	8.2	8.4	90
85	10.0	9.6	9.2	8.7	8.7	8.8	8.6	8.8	85
80	10.5	10.1	9.6	9.1	9.1	9.2	9.0	9.2	80
75	11.0	10.6	10.0	9.5	9.5	9.6	9.4	9.6	75
70	11.5	11.0	10.4	9.8	9.8	9.9	9.7	9.9	70
65	12.0	11.4	10.8	10.1	10.1	10.2	10.0	10.2	65
60	12.4	11.8	11.2	10.4	10.4	10.5	10.3	10.5	60
55	12.9	12.2	11.6	10.8	10.8	10.8	10.6	10.8	55
50	13.3	12.7	12.0	11.2	11.2	11.2	11.0	11.2	50
45	14.2	13.5	12.8	11.7	11.7	11.8	11.6	11.8	45
40	15.2	14.4	13.6	12.3	12.3	12.4	12.2	12.4	40
35	16.2	15.3	14.4	12.9	12.9	13.0	12.8	13.0	35
30	17.2	16.2	15.2	13.6	13.6	13.6	13.4	13.6	30
25	18.2	17.1	16.0	14.3	14.3	14.3	14.1	14.3	25
20	19.2	18.0	16.7	15.0	15.0	15.1	14.9	15.1	20
15	20.2	18.8	17.4	15.8	15.8	15.9	15.7	15.9	15
10	21.2	19.7	18.2	16.6	16.6	16.7	16.5	16.7	10
5	22.2	20.6	19.0	17.5	17.5	17.5	17.3	17.5	5
0	24.1	22.8	20.8	20.1	20.2	20.5	19.8	21.0	0

50-Yard Dash For Partially Seeing Girls

Percentile	10 Yr.	11 Yr.	12 Yr.	13 Yr.	14 Yr.	15 Yr.	16 Yr.	17 Yr.	Percentile
100	7.3	7.0	6.7	6.4	6.2	6.2	6.4	6.4	100
95	8.2	7.9	7.5	7.5	7.2	7.2	7.5	7.5	95
90	8.5	8.3	8.1	7.9	7.6	7.6	7.9	7.9	90
85	8.8	8.6	8.4	8.2	7.9	7.9	8.2	8.2	85
80	9.0	8.8	8.6	8.5	8.2	8.2	8.5	8.5	80
75	9.2	9.0	8.9	8.8	8.5	8.5	8.8	8.8	75
70	9.6	9.4	9.2	9.1	8.7	8.8	9.1	9.1	70
65	9.9	9.7	9.5	9.3	8.9	9.0	9.3	9.3	65
60	10.3	10.0	9.8	9.6	9.2	9.2	9.6	9.6	60
55	10.6	10.3	10.0	9.8	9.4	9.4	9.8	9.8	55
50	11.0	10.6	10.3	10.0	9.6	9.6	10.0	10.0	50
45	11.8	11.3	10.9	10.5	10.0	10.0	10.5	10.5	45
40	12.6	12.0	11.5	11.0	10.5	10.5	11.0	11.0	40
35	13.4	12.7	12.1	11.5	11.1	11.0	11.5	11.5	35
30	14.2	13.4	12.7	12.0	11.6	11.5	12.0	12.0	30
25	15.0	14.2	13.4	12.6	12.2	12.0	12.6	12.6	25
20	15.8	14.9	14.0	13.2	12.9	12.7	13.2	13.2	20
15	16.6	15.7	14.7	13.8	13.5	13.4	13.8	13.8	15
10	17.4	16.4	15.4	14.4	14.1	14.0	14.4	14.4	10
5	18.2	17.1	16.1	15.0	14.8	14.7	16.0	15.0	5
0	19.9	19.2	18.8	17.0	16.9	16.5	17.1	17.3	0

Adapting Other Fitness Tests

The AAU and California Alternate Minimum Physical Performance tests require little modification for visually handicapped youngsters. Dash norms should be modified in the AAU test while special norms are required for older children in the California test. Norms presented on pages 26-30 for the 50-yard dash and 600-yard run-walk can be used as modifications in both tests. Instructors have been given permission by sponsoring organizations to make regular awards to visually impaired boys and girls when stipulated modifications have been made.

Adapted physical fitness tests are used with visually handicapped students because no commonly used tests are fair to this group in all events. Of course, if such a test comes into common use, problems in testing levels of physical fitness of blind and partially seeing children will be minimized or eliminated. It is important to measure accurately physical fitness levels of all children, including those with visual impairments.

Ideas To Stimulate Fitness

In schools for the blind, many students participate in 50- and 100-mile walking or jogging clubs and receive certificates and awards when specific milestones are reached. Other students earn certificates in 10- and 50-mile

600-Yard Run-Walk for Blind Girls

Percentile	10 Yr.	11 Yr.	12 Yr.	13 Yr.	14 Yr.	15 Yr.	16 Yr.	17 Yr.	Percentile
100	2:50	2:40	2:30	2:30	2:25	2:25	2:25	2:25	100
95	3:15	3:07	3:00	3:00	2:57	2:57	2:57	2:57	95
90	3:20	3:13	3:07	3:07	3:04	3:04	3:04	3:04	90
85	3:25	3:19	3:14	3:14	3:11	3:11	3:11	3:11	85
80	3:31	3:26	3:21	3:21	3:18	3:18	3:18	3:18	80
75	3:37	3:32	3:28	3:25	3:25	3:25	3:25	3:25	75
70	3:44	3:39	3:35	3:35	3:32	3:32	3:32	3:32	70
65	3:51	3:46	3:42	3:42	3:39	3:39	3:39	3:39	65
60	3:58	3:53	3:49	3:49	3:46	3:46	3:46	3:46	60
55	4:05	4:00	3:56	3:56	3:53	3:53	3:53	3:53	55
50	4:15	4:10	4:03	4:03	4:00	4:00	4:00	4:00	50
45	4:40	4:30	4:19	4:18	4:15	4:15	4:15	4:15	45
40	5:05	4:50	4:35	4:33	4:30	4:30	4:30	4:30	40
35	5:30	5:10	4:50	4:48	4:45	4:45	4:45	4:45	35
30	5:55	5:30	5:06	5:03	5:00	5:00	5:00	5:00	30
25	6:20	5:50	5:21	5:18	5:15	5:15	5:15	5:15	25
20	6:45	6:10	5:37	5:34	5:30	5:30	5:30	5:30	20
15	7:10	6:30	5:54	5:50	5:45	5:45	5:45	5:45	15
10	7:35	6:50	6:10	6:06	6:00	6:00	6:00	6:00	10
5	8:00	7:10	6:27	6:22	6:15	6:15	6:15	6:15	5
0	9:00	8:15	7:40	7:34	7:15	7:15	7:20	7:30	0

600-Yard Run-Walk for Partially Seeing Girls

Percentile	10 Yr.	11 Yr.	12 Yr.	13 Yr.	14 Yr.	15 Yr.	16 Yr.	17 Yr.	Percentile
100	2:30	2:25	2:18	2:12	2:09	2:10	2:10	2:10	100
95	2:45	2:40	2:34	2:30	2:27	2:30	2:30	2:30	95
90	2:52	2:47	2:41	2:37	2:34	2:37	2:37	2:37	90
85	3:00	2:55	2:48	2:44	2:41	2:44	2:44	2:44	85
80	3:07	3:02	2:55	2:51	2:48	2:51	2:51	2:51	80
75	3:13	3:08	3:02	2:58	2:55	2:58	2:58	2:58	75
70	3:19	3:13	3:08	3:04	3:01	3:04	3:04	3:04	70
65	3:25	3:20	3:15	3:11	3:08	3:11	3:11	3:11	65
60	3:32	3:27	3:22	3:17	3:14	3:17	3:17	3:17	60
55	3:39	3:34	3:29	3:24	3:21	3:24	3:24	3:24	55
50	3:45	3:40	3:35	3:30	3:28	3:30	3:30	3:30	50
45	3:56	3:51	3:46	3:41	3:39	3:41	3:41	3:41	45
40	4:08	4:02	3:57	3:52	3:50	3:52	3:52	3:52	40
35	4:21	4:13	4:08	4:03	4:01	4:03	4:03	4:03	35
30	4:34	4:24	4:19	4:14	4:12	4:14	4:14	4:14	30
25	4:47	4:35	4:30	4:25	4:23	4:25	4:25	4:25	25
20	5:00	4:46	4:41	4:36	4:34	4:36	4:36	4:36	20
15	5:13	4:57	4:52	4:47	4:45	4:47	4:47	4:47	15
10	5:25	5:08	5:03	4:58	4:56	4:58	4:58	4:58	10
5	5:38	5:20	5:15	5:10	5:08	5:10	5:10	5:10	5
0	7:00	6:38	6:23	6:20	6:20	6:30	6:30	6:30	0

ADJUSTED NORMS FOR BLIND AND PARTIALLY SEEING BOYS

50-Yard Dash for Blind Boys

Percentile	Percentile Scores Based on Age								Percentile
	10 Yr.	11 Yr.	12 Yr.	13 Yr.	14 Yr.	15 Yr.	16 Yr.	17 Yr.	
100	8.7	8.0	7.6	7.2	6.9	6.6	6.3	6.0	100
95	9.3	8.5	8.2	7.8	7.5	7.1	6.8	6.5	95
90	9.5	8.7	8.4	8.0	7.7	7.3	7.0	6.7	90
85	9.7	8.9	8.6	8.2	7.9	7.5	7.2	6.9	85
80	9.9	9.1	8.7	8.3	8.0	7.6	7.3	7.0	80
75	10.1	9.3	8.9	8.5	8.2	7.8	7.5	7.2	75
70	10.3	9.5	9.1	8.7	8.4	8.0	7.7	7.4	70
65	10.5	9.7	9.3	8.8	8.5	8.1	7.8	7.5	65
60	10.7	9.9	9.5	9.0	8.7	8.3	8.0	7.7	60
55	10.9	10.1	9.6	9.1	8.8	8.4	8.1	7.8	55
50	11.1	10.3	9.8	9.3	9.0	8.6	8.3	8.0	50
45	11.4	10.6	10.1	9.6	9.3	8.9	8.6	8.3	45
40	11.6	10.8	10.3	9.8	9.5	9.1	8.8	8.5	40
35	11.9	11.1	10.6	10.1	9.8	9.4	9.1	8.8	35
30	12.1	11.3	10.8	10.3	10.0	9.6	9.3	9.0	30
25	12.4	11.6	11.1	10.6	10.3	9.9	9.6	9.3	25
20	12.7	11.9	11.4	10.9	10.6	10.2	9.9	9.6	20
15	13.0	12.2	11.7	11.2	10.9	10.5	10.2	9.9	15
10	13.4	12.6	12.1	11.6	11.3	10.9	10.6	10.3	10
5	13.7	12.9	12.4	11.9	11.6	11.2	10.9	10.6	5
0	21.0	19.5	18.5	17.6	16.6	15.7	14.7	13.8	0

50-Yard Dash for Partially Seeing Boys

Percentile	10 Yr.	11 Yr.	12 Yr.	13 Yr.	14 Yr.	15 Yr.	16 Yr.	17 Yr.	Percentile
100	7.3	7.0	6.7	6.4	6.2	5.9	5.6	5.4	100
95	7.8	7.6	7.3	7.0	6.7	6.4	6.1	5.9	95
90	8.0	7.7	7.5	7.2	6.9	6.6	6.4	6.1	90
85	8.2	7.9	7.7	7.4	7.1	6.8	6.5	6.2	85
80	8.3	8.0	7.8	7.5	7.2	6.9	6.6	6.3	80
75	8.4	8.1	7.9	7.6	7.3	7.0	6.7	6.4	75
70	8.5	8.2	8.0	7.7	7.4	7.1	6.8	6.5	70
65	8.6	8.3	8.1	7.9	7.6	7.2	6.9	6.6	65
60	8.8	8.5	8.3	8.0	7.7	7.4	7.1	6.8	60
55	8.9	8.6	8.4	8.2	7.9	7.5	7.2	6.9	55
50	9.2	8.8	8.7	8.5	8.1	7.6	7.3	7.0	50
45	9.5	9.1	8.9	8.6	8.3	7.9	7.6	7.3	45
40	10.0	9.4	9.1	8.8	8.5	8.2	7.9	7.5	40
35	10.4	9.8	9.5	9.1	8.8	8.5	8.2	7.8	35
30	10.7	10.1	9.8	9.4	9.1	8.7	8.4	8.0	30
25	11.0	10.4	10.1	9.7	9.4	9.0	8.7	8.3	25
20	11.4	10.8	10.5	10.1	9.7	9.3	9.0	8.6	20
15	11.8	11.2	10.9	10.5	10.1	9.7	9.3	8.9	15
10	12.3	11.7	11.3	10.9	10.5	10.0	9.7	9.3	10
5	12.7	12.1	11.7	11.3	10.9	10.4	10.0	9.6	5
0	16.6	15.1	14.7	14.3	13.3	12.4	11.9	11.4	0

600–Yard Run-Walk for Blind Boys

Percentile	10 Yr.	11 Yr.	12 Yr.	13 Yr.	14 Yr.	15 Yr.	16 Yr.	17 Yr.	Percentile
100	2:14	2:03	1:55	1:50	1:42	1:35	1:33	1:33	100
95	2:41	2:30	2:20	2:12	2:04	1:58	1:53	1:53	95
90	2:44	2:33	2:23	2:15	2:07	2:01	1:57	1:57	90
85	2:48	2:36	2:26	2:18	2:10	2:04	2:00	2:00	85
80	2:52	2:40	2:30	2:22	2:14	2:07	2:04	2:04	80
75	2:57	2:45	2:35	2:26	2:18	2:10	2:07	2:07	75
70	3:02	2:49	2:39	2:30	2:22	2:13	2:10	2:10	70
65	3:06	2:53	2:43	2:34	2:26	2:17	2:14	2:14	65
60	3:10	2:57	2:47	2:38	2:30	2:21	2:17	2:17	60
55	3:15	3:02	2:52	2:42	2:34	2:26	2:20	2:20	55
50	3:20	3:06	2:56	2:46	2:38	2:30	2:23	2:23	50
45	3:26	3:12	3:02	2:52	2:44	2:36	2:28	2:28	45
40	3:34	3:20	3:10	3:00	2:52	2:42	2:34	2:34	40
35	3:43	3:29	3:19	3:09	3:01	2:50	2:42	2:42	35
30	3:55	3:40	3:30	3:20	3:12	3:01	2:52	2:52	30
25	4:07	3:52	3:41	3:31	3:23	3:11	3:02	3:02	25
20	4:18	4:03	3:52	3:42	3:34	3:21	3:12	3:12	20
15	4:30	4:15	4:04	3:54	3:46	3:33	3:23	3:23	15
10	4:44	4:28	4:16	4:06	3:58	3:44	3:34	3:34	10
5	5:00	4:40	4:28	4:18	4:10	3:55	3:45	3:45	5
0	6:28	6:05	5:54	5:50	5:50	5:44	5:31	5:40	0

600–Yard Run-Walk for Partially Seeing Boys

Percentile	10 Yr.	11 Yr.	12 Yr.	13 Yr.	14 Yr.	15 Yr.	16 Yr.	17 Yr.	Percentile
100	2:03	1:55	1:49	1:43	1:32	1:25	1:31	1:26	100
95	2:23	2:08	2:09	2:03	1:52	1:45	1:41	1:37	95
90	2:31	2:21	2:16	2:08	1:58	1:52	1:46	1:45	90
85	2:35	2:27	2:20	2:13	2:04	1:57	1:49	1:49	85
80	2:38	2:30	2:23	2:16	2:07	2:01	1:52	1:52	80
75	2:43	2:33	2:26	2:18	2:10	2:03	1:55	1:55	75
70	2:47	2:37	2:30	2:21	2:13	2:07	1:57	1:56	70
65	2:50	2:40	2:33	2:24	2:15	2:09	2:00	1:59	65
60	2:54	2:43	2:36	2:28	2:20	2:11	2:01	2:01	60
55	2:58	2:46	2:39	2:30	2:22	2:12	2:04	2:03	55
50	3:01	2:49	2:43	2:32	2:24	2:16	2:06	2:06	50
45	3:06	2:53	2:46	2:35	2:27	2:19	2:08	2:07	45
40	3:09	2:57	2:50	2:39	2:32	2:22	2:11	2:10	40
35	3:14	3:03	2:54	2:43	2:36	2:26	2:13	2:15	35
30	3:18	3:08	3:00	2:47	2:39	2:30	2:17	2:18	30
25	3:22	3:14	3:06	2:53	2:46	2:33	2:24	2:23	25
20	3:27	3:20	3:10	3:00	2:54	2:37	2:31	2:27	20
15	3:36	3:28	3:21	3:05	3:02	2:43	2:37	2:36	15
10	3:50	3:37	3:37	3:18	3:16	2:57	2:42	2:45	10
5	4:08	3:58	3:54	3:42	3:35	3:18	3:13	3:06	5
0	6:17	6:20	5:59	5:49	5:51	5:44	5:39	5:02	0

swim programs sponsored by the American Red Cross. Visually handicapped students in public schools can be challenged and motivated by similar activities and approaches.

Students with visual handicaps, particularly at the high school level, should be encouraged by teachers and parents to participate in individualized aerobic programs in their spare time. Hopefully, these programs will be carried into adulthood. Swimming, stationary running, rope skipping, and exercise on a stationary trainer bicycle or treadmill need no modification for blind individuals. Some blind people walk rapidly without a cane, but they are usually safer with one. A sightless person can jog, hike, or use a tandem bicycle with a partner. Persons with some useful vision can exercise by themselves. Individuals with even less than one-tenth normal vision can safely cycle in areas where there is no traffic. Since visually handicapped individuals need superior levels of physical fitness to succeed, they should be encouraged to become permanent participants in programs that promote vigorous physical activity.

Chapter 6

SPECIAL EQUIPMENT AND TEACHING METHODS

A limited number of special items is manufactured to aid visually handicapped children in physical education. Some generally available items are discussed in this chapter because of their value to blind individuals. Teaching physical education to blind children is not nearly as difficult as many anticipate. Methods described in this chapter have been particularly helpful to many teachers of visually handicapped children. Resourceful persons will adapt, modify, and adjust these devices and methods, and develop new and original ones to meet needs and interests, and to challenge those with whom they work.

Special Equipment

Special equipment can help to make ball games among blind and sighted children more meaningful and enjoyable. Efforts have been made to produce various types of audible balls. However, the balls produced so far can only be used for certain activities and some are not very durable.

A sturdy ball with bells in it is available from the American Foundation for the Blind.(1)* This moderately priced, yellow, soccer-type ball withstands kicking and some batting by weaker hitters. When a bell ball is bouncing or rolling it can be located by totally blind players. However, the weight added by the bells reduces its bouncing qualities, and the bells cannot be heard when the ball comes to rest. This type of ball has been used for kickball, shooting baskets, playing catch, and in related throwing, catching, and kicking activities for eight years. Some teachers have attached small bells to regulation soccer, playground, and volleyballs and used them successfully in ball games and activities with visually handicapped youngsters.

Sensory Aids Corporation,(2) a nonprofit company, has developed sound-source footballs, basketballs, and soccer balls that emit three clear, high-pitched beeps per second. The sound starts when a pin is withdrawn from a socket in the skin of the ball and stops when the pin is replaced. A replaceable, nonrechargeable battery with a life of hundreds of hours makes the sound possible. Blind children can locate this ball fairly easily; partially seeing children would have an even easier time locating it if it were yellow rather than brown. These balls, priced from $35 to $50 each, have been sold for about a year at this writing. They withstand some kicking, passing, bouncing, rolling, and shooting, but it is too early

*Numbers in parentheses refer to a list of sources of materials, on page 39, which gives the address of each institution.

PHOTO: Lyonel D. Avance, Los Angeles City Board of Education

to know how they withstand prolonged rugged play. They must not, however, get wet or muddy.

Wilson Sporting Goods Company and Telephone Pioneers of America(3) have beeper softballs available. As yet, these balls have not been perfected to withstand hard batting for more than two weeks or so. In their present form, these balls are suitable for weaker hitters and for games and activities in which a ball does not receive rugged use.

An electronic ball with a beeper made possible by a rechargeable dry cell is available from the Royal National Institute for the Blind.(4) Although this ball does not withstand kicking and batting, it is appropriate for games like snatch the bacon, in which a ball does not receive rough treatment.

The American Printing House for the Blind(5) makes available to schools and classes for the blind AC and battery-operated audible goal locators. Locators were first used on basketball backboards, but now are used in swimming pools, on playgrounds and athletic fields, and in gymnasium activities. About 150 click sounds are emitted per minute.

Gym scooters(6) are used by visually impaired children, particularly in some of the Eastern residential schools. Scooters are made of 2-in x 12-in x 14-in boards with four castors for rollers. They travel in any direction and provide much enjoyment and exercise for games, relays, and individual activities.

The American Foundation for the Blind(1) has portable aluminum bowling rails, nine feet long and three feet high. These guide rails, weighted

with bowling balls on the base, can be easily carried to any lane and quickly assembled. At present, there are no established exact standards for the rail used in league or open play. The American Blind Bowling Association has approved a 15-foot rail for its national tournaments and is considering the problem of standardization for all competition.

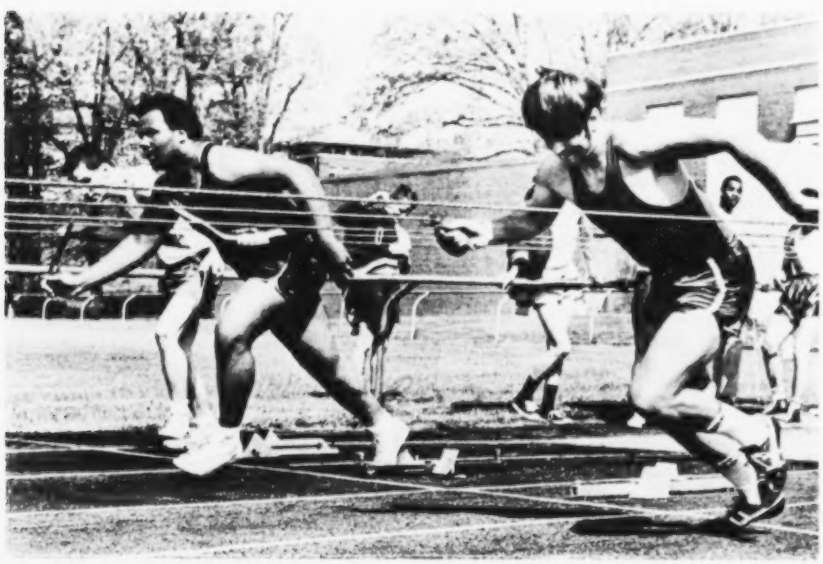
Raised metal or wood rings can be provided for blind children to throw balls for distance and to put the shot. Visually impaired children perform with much more confidence in such rings.

Lines on playing fields should be marked clearly in bright colors; even children with little more than light perception can follow white lines on green grass. Balls and other objects used by visually impaired children should be painted bright yellow so they can be seen more easily than dull or drab colored objects.

Blind children can take part in relays when they have an easily identifiable turning point, such as the edge of a grass surface or the end of a cement walk. Indoors, mats 5 ft x 20 ft can be used to provide suitable turning points for sightless participants.

Tag games and similar activities in which a blind child or two can participate are effectively played on tennis courts surrounded by fences or plots of grass. Indoors, a gymnasium or large room cleared of all obstacles can be used. In limited areas such as these, sightless children can more easily locate goals and find their direction.

Residential schools for the blind erect guide wires for track events and some running activities. While this is impractical for most public schools, window sash cord can be stretched at hip-height for 50-, 75-, and even 100-yard dashes. Relays and longer distances can be run shuttle position between two points.



Each end of a cord can be held by a student or tied to an anchored object. Blind children can lightly run their fingers along the cord to guide them over the distance — some may prefer to wear gloves. For longer distances, sightless runners may be paired with children who have vision. Partners' belts may be connected with a short cord or their upper arms linked with short elastic bands. Also, a sightless runner may lightly grasp the elbow of his partner, or they may run hand in hand. Runners with much less than 20/200 vision can follow a curbed track, particularly when running at a slow pace.

J. C. Penney Stores and Battle Creek (Michigan) Equipment Company have economical treadmills available. Schools, organizations, and parents would do well to make some form of running available for all visually handicapped children.

Cycling is another highly regarded physical fitness activity. Trainer bicycles or tandems are appropriate for sightless children. Small training wheels can be placed on either side of the back wheel of a bicycle to increase stability and safety, or two bicycles can be placed side by side and connected by rods. Of course, a visually impaired child should be accompanied by a rider with a good deal of vision on connected and tandem bicycles. Where there is little or no traffic, some visually handicapped cyclists can safely ride alone if obstructions are not nearby.

Multi-station apparatus for weight and resistance training, used in many schools and colleges, is ideal for blind people. These single-unit, multi-station devices can be used for a variety of weight lifting and resistance training activities without danger of dropping bars and weights. Proper amounts of weight can easily be placed on these units by visually handicapped participants.

Devices that combine isometric and isotonic exercises are appropriate for visually handicapped individuals.(7)

Rowing machines, stationary bicycles, wall peg exercise boards, climbing ropes, and traveling ladders are useful pieces of equipment. Most playground equipment — jungle gyms, turning bars, horizontal ladders, parallel bars, horizontal bars — is suitable for visually impaired children. Companies which manufacture and distribute items useful for all physical education and/or recreation programs should be investigated as many of these items are particularly good for blind youngsters.

Teachers can write for catalogs from: Playground Corporation of America, 524 W. 43rd St., New York, N.Y.; J.A. Preston Corporation, 71 Fifth Ave., New York, N.Y.; and Lind Climber, 805 Reba Place, Evanston, Ill. 60202.

Parents, teachers, or leaders can obtain additional information on special equipment from: specialists in the education of visually handicapped children in state departments of education, special education departments in large cities, college or university adapted physical education/therapeutic recreation instructors, and from physical education/recreation personnel in residential schools for the blind (located in 40 states). Special Education Instruction Materials Centers (SEIMC) and Educational Resources Information Center for Exceptional Children (ERIC) can provide helpful resources and valuable contacts, and may be reached through

the Council for Exceptional Children (CEC) Information Center, 1411 Jefferson Davis Highway, Arlington, Virginia 22202. The Unit on Programs for the Handicapped, American Association for Health, Physical Education, and Recreation, 1201 16th Street, N.W., Washington, D.C. 20036, can also provide additional information and materials on equipment and devices.

Teaching Methods

A blind child depends primarily upon his tactual and auditory senses to obtain information about himself and his environment. Kinesthetic awareness gives information about the position of the body and its various parts, and about other basic motor, perceptual-motor, and perceptual concepts.

When dealing with a visually handicapped individual, the teacher should give detailed auditory instructions which are in concrete terms within the individual's realm of experience and not based on visual cues. For example, defining *sway* in terms of a tree doesn't mean much to one who has never seen a tree. A student may observe the teacher or a talented student perform skills or patterns in slow motion by placing his fingers on the performer's body. Some instructors bend and maneuver large rubber dolls into desired positions so that blind students can examine actions with their fingers. Dolls are particularly valuable to convey concepts basic to forward rolls, somersaults, flips, stunts, self-testing, and related activities since it is impossible for a blind child to observe performers completely by touch. Many lead-up and less complicated activities precede instruction in more advanced stunts, skills, and movement patterns.

Another method used in teaching blind children involves grasping the student's arms or legs and guiding him through the desired movements. An instructor mechanically manipulates the child's limbs and body so he can develop kinesthetic awareness of the skill. This procedure is especially effective when combined with the opportunity to feel another performer in action.

Vocal instruction alone is of limited value to a totally blind student. For example, in teaching wrestling, a teacher or aide must get down on the mat and show a blind youngster tactually exactly what to do; a similar approach is effective on apparatus and in a swimming pool. Blind children require individual instruction from a teacher or skilled student. Sometimes regular or additional individualized instruction is given just before a class assembles or immediately after it has been dismissed.

When a game is selected for physical education class, whether on the playground or in the classroom, some concept of the whole activity should be given to sightless youngsters beforehand; then each activity can be broken down into its component parts. Normally this procedure is used in teaching motor skills to anyone, but it is particularly helpful to, and necessary for, blind children. Each part of an activity is described verbally and demonstrated manually so blind children can grasp physically, men-

tally, and kinesthetically how it is done. Individual movements are then slowly put together into a total activity to complete a whole-part-whole cycle of teaching.

To keep blind children aware of their progress in learning skills and motor patterns, instructors should make frequent, honest, and sincere comments to their students. Teachers can expect blind students to learn as much as others in a class, although the methods of instruction may differ. If a student is not in physical or verbal contact with a class, he may withdraw within himself and not fully take part in the learning process.

During the process of learning a game, a blind individual should be given some verbal description of its essential characteristics by a teacher or companion. A helpful guideline is to describe what anyone would want to know at certain stages in learning the game or activity. Descriptions should be given in a matter-of-fact, not sympathetic or condescending, manner.

Teaching some sightless children to jump rope can be difficult. One practical method is to have a student stand behind the teacher and place his hands on the teacher's hips. The partners jump together in this manner for a while before a rope is introduced. At first the instructor turns the rope so the child gains a sense of rhythm; later the blind child jumps alone.

Instructing partially seeing students usually does not require as much effort on the part of teachers or aides as teaching blind youngsters. With some useful vision, students can observe demonstrations done in slow motion at close range. Sometimes these children find it helpful to have their limbs manipulated or to feel the movements of a performer's body in action. It should be noted that some children use limited vision better than others. Actually, there are few physical education or recreation programs in which partially seeing children cannot participate.

Having visually handicapped children in a class need not mean more supervision for physical educators or recreation personnel. A blind participant can be paired with a youngster who has normal vision, since sighted children in almost every class or situation are willing to help and can be taught to give only necessary assistance to visually handicapped classmates. When a blind student enters a class, it is desirable to tell his classmates something of the abilities, desires, and needs of visually handicapped individuals. As a class progresses from activity to activity, a blind student, when given the opportunity, usually demonstrates his skills and gains the respect of his classmates — he no longer stands on the sidelines; he is an integral part of the group.

Books For Visually Handicapped Students

Three books in Braille and large type are particularly helpful to blind and partially seeing children in physical education classes. *Physical Education for High School Students,* published by the American Association for Health, Physical Education, and Recreation, covers games, sports, recreational activities, skills, strategies, and rules. In *Boys' Book of Physi-*

cal Fitness and *Girls' Book of Physical Fitness*, Hal and Jean Vermes cover this important subject. A special kit is available to help teachers or leaders show blind persons prominent features of playing areas, the positions of players, and game strategies. Schools and classes for visually impaired students can obtain these books and the kit (Staley Sports Kit) from the American Printing House for the Blind.(5)

Sports Illustrated and some books on athletes and sports are available on long-playing records (Talking Book). *Teen-Time*, a magazine in Braille and large type, has a column about performances of visually handicapped athletes throughout the United States and, to some extent, abroad. This magazine is sent free of charge to visually handicapped teen-agers and has inspired thousands of blind and partially seeing children.

Any book can be put into Braille, large type, or recorded on tape or cassette. Braille or large type can be used for charts, schedules, team standings, rules, bowling averages, or other records important to the program or its participants. Transcribing is usually done by volunteers and nonprofit organizations. Physical educators or recreation personnel who need books or other materials transcribed, should contact a resource or itinerant teacher of visually handicapped children or a nearby residential school for the blind.

There are many ways and means to involve visually handicapped children in vigorous physical education activities in public schools and community recreation programs. Some teachers and leaders are adequately meeting the challenge — many others are not yet doing so.

Sources of Materials

1. American Foundation for the Blind, 15 W. 16th St., New York, N.Y. 10011.
2. Sensory Aids Corporation, 175 Terminal Dr., Plainview, N.Y. 11803.
3. Telephone Pioneers of America, 195 Broadway, New York, N.Y. 10007.
4. Royal National Institute for the Blind, 224 Great Portland St., London, W1., England.
5. American Printing House for the Blind, 1839 Frankfort Ave., Louisville, Ky. 40206.
6. Titus Gym Scooter Company, Winfield, Kans. 67156.
7. Exer-Genie, Incorporated, 656 E. Commonwealth, Fullerton, Calif. 92634.
8. Concordia Publishing House, 3558 S. Jefferson Ave., St. Louis, Mo. 63118.

Chapter 7

INCLUDING VISUALLY HANDICAPPED CHILDREN IN ACTIVITY PROGRAMS

Physical education programs in which blind students participate with sighted classmates are not much different from regular programs. Even in ball games, where most modifications are necessary, the class carries on as usual while a blind player uses the required adaptations.

A number of adaptations can be used at both elementary and secondary levels, but to avoid repetition, an activity is discussed on one level only.

Teachers, particularly on the elementary level, can select games, relays, contests, stunts, self-testing activities, etc. in which a visually handicapped child can take part with little or no modification; such activities should not be less vigorous than those for sighted classmates. A teacher should not water down activities for a class because of the presence of a blind child.

It is desirable for a visually handicapped student to spend as much time as possible in regular and unmodified activities. The more an activity must be modified, the more uncomfortable a blind child and his classmates become. Therefore, adaptations should be limited to absolutely necessary minor changes. This is an important way for visually handicapped students to gain good self-images and to earn the respect of classmates. A blind child can benefit from some experiences with activities which have been modified for him, but they should not be prolonged or overdone.

Two major considerations in placing a blind child in a physical education class are his level of physical fitness and, especially important from a youngster's point of view, his opportunity to have fun. There is no objection to assigning visually handicapped youngsters to adapted physical education classes if they are given opportunities to participate in vigorous activities every day. However, too many adapted programs do not offer vigorous activities because children with other handicapping conditions are in the same classes. In these situations blind students, who are rarely impaired beyond loss of vision, are better placed in regular classes and given vigorous exercises daily. Generally speaking, students who lack previous experience in physical education programs or possess low levels of physical fitness are best placed in adapted programs. Blind students should be placed in adapted programs if they can receive more exercise than being onlookers, scorekeepers or attendants in regular classes. Children with some useful vision are usually most appropriately placed in regular classes and given as much exercise as their classmates.

On the secondary level, blind students can select or be assigned to units of instruction rather than placed in classes for a semester or year. For example, a blind boy might participate in such units as wrestling,

weight training, rebound tumbling, gymnastics, apparatus, physical fitness, and swimming. During the year he might spend time in three or four different classes in these units.

Elementary School

Some approaches to physical education on the elementary school level require little or no modification for blind students. Blind youngsters usually fit easily into movement education or exploration programs which are being used extensively and effectively in regular and special programs all over the country. Some visually handicapped children may need suggestions from time to time to help them explore space, carry out movements, or solve problems. For example, one who has never seen a cat or a rocket might find it difficult "to move like a cat" or "blast off like a rocket" at the command of his teacher.

In many Michigan schools the physical education curriculum is organized to make every child aware of his potential. No child has to try an activity or movement pattern for which he is not physically prepared. Impaired, disabled, and handicapped children fit well into programs of this type which are geared to individuals rather than groups.

Most singing games and other rhythmic activities for preschool and primary level children need little or no modification for visually handicapped children. On the intermediate level, some dances are more easily learned and performed by sightless children than other dances. Therefore, teachers can select dances requiring little or no modification when blind children are participating. If necessary, a blind student and his partner can hold hands during an entire formation or pattern. Rather than move about a great deal, a blind dancer and his partner can remain in a limited area for certain dances. A sighted partner usually can give needed assistance so that teachers and aides are free to perform their usual classroom duties.

In tumbling, teachers depend a great deal upon methods already discussed for teaching blind children. Most elementary school visually handicapped children can learn such movements and patterns as forward and backward rolls, armless sitdown and rise, frog stand, tip-up, head- and handstands, jump from knees to stand, double roll, knee-shoulder balance, and many other singles and doubles stunts and self-testing activities.

Parachute play is another activity in which blind children can easily participate. The whole class can do interesting things with a parachute — make waves, mountains, and umbrellas; pull, lift, and tug it; walk, jump, and gallop with it; play games under it; and do folk and square dances with it. Depending upon class needs and emphasis, parachute activities can be used to develop specific elements of physical fitness, basic motor patterns for games and lead-up activities, and a variety of rhythmic activities including folk and square dances.

Such fitness tests and activities should be a part of every elementary school program.

Blind children can compete in many races, such as the Chinaman's race, trio or quartet race, rail-riding race, wheelbarrow race, sack race,

crab race, crawling race, lame dog race, and three-legged race. Many activities and movements in these races can serve as bases for relays. Sightless children adapt well to relays in which teammates work together. Examples of such partner relays are: sedan relay, Siamese twin relay, caterpillar relay, centipede relay, and donkey relay. Visually handicapped children respond to, and perform well in, relays such as dirty sock relay, leapfrog relay, military relay, pass through hoop relay, and stride relay.

Contests and competitive activities are popular with elementary school children. Games like Simon Says and stunt elimination (where first youngster performs stunt, second does this stunt plus another, etc.) need no modification for visually impaired youngsters. The weather vane game gives sightless children opportunities to develop orientation skills in ways that are fun. In a stalking contest a leader sings, blows a whistle, or makes other noises. When the leader stops making noise, he turns around to see if any player is moving.

Activities in which players depend upon verbal cues are usually fair to blind children. For example, a teacher may combine numbers, colors, and shapes with different body positions so that one, red, or square means stand; two, blue, or circle means sit; three, green, or triangle means be on the stomach; and four, yellow, or rectangle means lie on the back. When a number, color, or shape is called, the last player to take the correct position is eliminated or given another task to perform; sometimes the first player taking the correct position is permitted to rest so the less skilled and weaker youngsters get constant activity.

Most hula-hoop activities need no modification for blind youngsters. It is not uncommon to see blind students join in hula-hoop fun with sighted classmates; the same can be said for pogo sticks, stilts, skates, and related activities.

Another way for everyone to obtain beneficial exercise is to take a brisk hike. Have all the children, including blind youngsters, form pairs — for safety, companionship, social development, and fun on hikes. Blind children can also be integrated into games in which one or more players are blindfolded. For example, blind man's bluff can be played by blind and sighted children; sighted children may be asked to shout and clap hands to aid the "blind man."

Games played by couples or partners, such as partner tag and Ocean Is Stormy, are easily adapted for visually impaired and sighted youngsters. Such games and activities make it easy to include visually handicapped children without reducing enjoyment or exercise for the rest of a class.

Games which use a chain formation are ideal for blind children. In chain tag, for example, *It* catches another player; these two join hands and run to catch a third youngster, and so on until all but one is caught. The last one becomes *It* for the following game or chooses the next activity. A blind child can avoid the chain by running away from the sounds of footsteps.

Blind students can best play games such as Midnight on well-defined surfaces and in limited areas — a plot of grass or dirt surrounded by a sidewalk makes a good play area. In Midnight, "chickens" run from the "blind fox." On a grass surface, they should clap hands or shout;

on concrete, the "blind fox" runs toward the sound of footsteps to tag someone. When a blind youngster is a "chicken" he can run to the edge of the surface or run with a sighted partner.

Kickball is a popular game played by elementary school children. An audible ball or a regular ball rigged for sound makes a blind child's play possible and meaningful. A blind youngster often pitches, but when the ball is returned to him it should be rolled, not thrown. A catcher can give a blind pitcher directions for delivering the ball by clapping his hands, talking, or using some other audible signal.

When a blind fielder picks up a moving ball which has been kicked, the kicker should be called out. A sightless batter may place the ball on home plate, kick it, and run to first base where a teammate is shouting. If a kick is good for more than a single base, a teammate can grasp the hand of the blind player and run with him as far as possible without being put out.

Many blind children like to play softball, but usually do not perform as well as in kickball. The ball can be placed on a batting tee so a sightless batter can hit it. Bases are run and outs are made as in kickball. A mobile blind boy can be encouraged to play deep in the outfield where he can make spectacular putouts if his teammates do not pick up rolling balls in his part of the field!

When a visually handicapped student plays dodgeball, he can be paired with a sighted classmate who helps him dodge the ball. Assistance can also be given by calling directions — north, south, east, or west — to indicate where the ball is on the circle; blind youngsters can then avoid the area called. When it is a sightless player's turn to throw the ball at someone, other players clap their hands or shout.

In volleyball a blind player may make all the serves for his team. The disadvantage, however, is that other players do not have an opportunity to serve. Although many visually impaired volleyball players throw rather than hit the ball, those who can serve by hitting the ball should do so. Another popular variation is one-bounce volleyball — identical in every respect to the regulation game except that the ball is played on the first bounce — it's fun and provides equal competition for all.

Secondary School

Flag football is a popular game in which visually handicapped students can participate. Players with little or no vision usually play center or guard line positions. The player carrying the ball shouts so sightless players can locate him and attempt a tackle. An inexpensive plastic football containing bells, and rags looped around the players' belts or waist bands help blind youngsters. Some partially seeing players have played 6- and 11-man football well enough to be selected to high school all-star teams. Each year a few partially seeing players participate in college football. An outstanding offensive tight-end, Fred Arbanis, played with the Kansas City Chiefs although blind in one eye.

Partially seeing boys and girls can compete in most regular track and field events. Certain schools for the blind send students with some useful

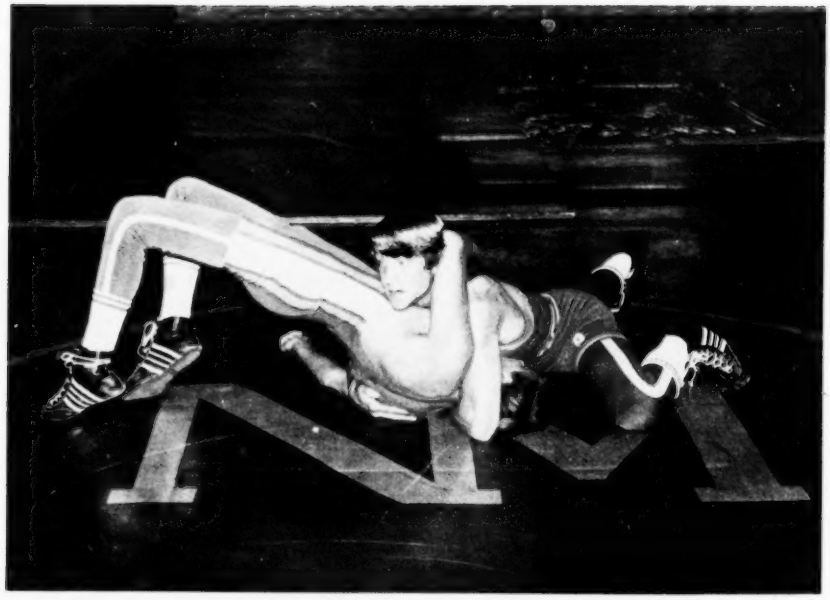
vision to compete in track and field meets with public secondary schools. Most of these visually impaired athletes only find running hurdles, competing in the pole vault, and doing the running high jump difficult. However, these events are not impossible, as youngsters from the Maryland School for the Blind participate successfully in each of these events.

Although putting the shot does not require functional vision, most sightless boys and girls who have done well in this event have had vision at some time in their lives. A few well-oriented blind boys have successfully thrown the discus. However, this sport should be attempted only under carefully supervised conditions so there is no danger to people nearby. No modifications are needed for sightless students in standing long and high jumps. By using methods described earlier, blind boys and girls can run races of all lengths, including the marathon. At least a half dozen sightless men have finished the famous Boston Marathon in 3½ hours or less — 26 miles at an average pace of about 8 minutes per mile! Many partially seeing athletes have won high school letters in track and field; some have gone on to win letters in college competition.

Partially seeing players adapt well to basketball, but major adaptations must be made for sightless players. Usually sightless students restrict themselves to shooting baskets and other games involving shooting skills such as Twenty-one and Around-the-World. In some situations a sightless player takes some or all of the free throws awarded his team; he is given two points for hitting the rim and five points for making the basket. Sometimes one point is scored for hitting the backboard, two for hitting the rim, and three for making the basket. Between free throws, a sightless player can jump rope on the sidelines or participate in other physical fitness activities. These adaptations are mentioned only to suggest ways in which blind children can be included in basketball activities. Admittedly, most sightless children probably should not spend much time in these activities.

Wrestling is the sport in which blind and partially seeing athletes have most distinguished themselves. Each year about 500 visually impaired boys compete on interscholastic and intercollegiate wrestling teams. About 25 blind and partially seeing athletes annually place among the first 5 in state high school wrestling tournaments. State wrestling championships have been won by teams from schools for the blind in Alabama, Kentucky, Michigan, New Mexico, Tennessee, Texas, and Virginia. Some colleges and universities have awarded athletic scholarships to visually impaired wrestlers. Hundreds of other blind and partially seeing boys, mostly in residential schools for the blind, wrestle in intramural programs until they become old enough and talented enough to make the team.

A wrestler with little or no vision may be at somewhat of a disadvantage in the standing position. However, the official rule book recommends that a blind wrestler's opponent use the tie or lock approach whereby each wrestler places one hand on the back of the head of his opponent and the other hand under the elbow of the opponent's arm that has the hand on the back of the head. This slight modification does not interfere with a sighted boy's wrestling style.



Some blind and partially seeing boys have earned various belt degrees in judo. Older girls in some schools for the blind are given instruction in judo so they can protect themselves.

Individual competitions in which contact is maintained — for example the Indian wrestle, back to back lift, back to back push, back to back stick pull, hoop tug, boundary tug, medicine ball wrestle, hand wrestle, lifting contest, pull over, and stick pull — are fair to visually handicapped children. Games such as tug-of-war and push ball should not be overlooked since sightless youngsters can participate and the rest of the class often enjoys such changes of pace.

Swimming is only slightly more difficult to teach to blind students than to youngsters with normal vision. A blind child needs to maintain close contact with his teacher during the learning process; by swimming beside a wall of the pool, a blind swimmer can keep his direction better. Competitive swimming is possible but difficult for sightless persons. For example, in back stroke races someone must warn blind youngsters when they are approaching the wall so they will not strike their heads. Partially seeing swimmers face few problems in competitive swimming, although some may have difficulty keeping track of the opposition. Synchronized swimming is an excellent activity for visually handicapped girls.

It is common practice for partially seeing and sightless persons to dive from three-foot boards, and some also use high boards. Teaching a blind child to dive is similar to instructing him in tumbling. For the safety of the diver and other people in the pool, a visually handicapped diver should not leave the board until an all-clear signal is heard.

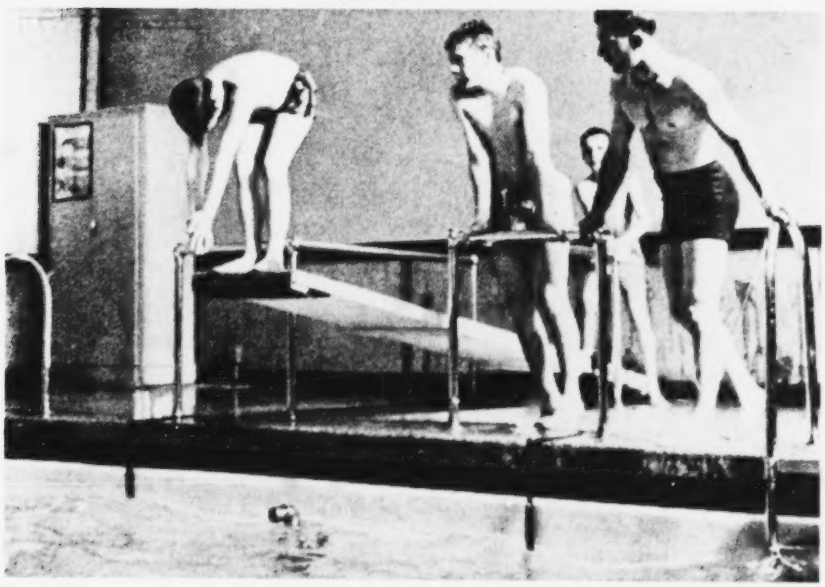
Blind students should be included in surfing and scuba diving instruction. They should also be included in life saving training — at least one blind father has rescued his child from the bottom of a family pool!

Some high schools and many universities have rowing crews. From time to time blind and partially seeing young men have won letters in rowing. About the only aid needed is an ordinary thumbtack pushed into an oar so a blind boy can rotate the oar to the proper position for feathering.

Gymnastic activities have long been a part of physical education programs for blind youngsters in residential schools. Blind and partially seeing boys have won letters in high school and college gymnastics — particularly in rope climbing events. Partially seeing boys and girls can take part meaningfully, in sports such as soccer, speedball, and field hockey. Each year the Maryland School for the Blind fields a soccer team of partially seeing players. These sports, however, are not recommended for sightless children.

Blind and partially seeing boys and girls can take part in trampolining. A bell attached underneath the center of the trampoline helps a sightless student stay in the proper position as he performs individual stunts and routines. With proper precautions, blind children can be taught various drops and flips safely. Only a few sightless students can be safely taught more complicated stunts.

Weight training needs no modification for sightless boys. It is surprising that more do not take part in this activity.



Unfortunately bowling is not a part of the physical education program in many schools. Since this activity has much carry-over value, particularly for visually impaired students, a special effort should be made to offer bowling instruction. Many sightless bowlers use guide rails; some maintain their orientation to the alley and pins by using the wall close to an end lane.

Some visually handicapped girls twirl batons well enough to take part in parades. It usually takes them somewhat longer to learn this skill but many have developed interesting routines.

Partially seeing and even some sightless girls have been members of drill teams. For example, visually handicapped girls form one third of the drill team from the West Virginia School for the Deaf and Blind which is invited to appear in most big parades in that state.

Partially seeing students participate in dual sports such as badminton, handball, tennis, table tennis, horseshoes, and tetherball. Sightless persons can learn to play shuffleboard, and sometimes golf, but usually need quite a bit of assistance from a sighted companion.

Not many schools include winter sports in their programs. Little or no modifications are required for sightless boys and girls in sledding and tobogganing. A sightless skier usually goes down a slope behind a partner who plays a radio or makes a continuous noise of some kind. Ice skating and saucer sliding are enjoyed in pairs, however, at least one partner should have some useful vision.

Some blind secondary school students may have an opportunity to fence. Fencing equipment which is entirely safe to use without protective equipment is now available. Some teachers feel fencing makes definite contributions to the sensory development of visually handicapped children.

It is becoming increasingly important to provide children with opportunities to develop lifetime sport skills. Skill development is as important for blind children as for those with normal vision. Activities in which blind adults are most likely to participate are swimming, diving, scuba diving, water skiing, surfing, pedal boating, hiking, bowling, weight training, calisthenics, rope jumping, tandem cycling, trainer bike exercising, rowing machine exercising, winter sports, shuffle board, camping, horseback riding, and fishing.

Chapter 8

RECREATION AND VISUALLY HANDICAPPED CHILDREN

Most leisure-time activities are feasible for visually impaired persons although slight modifications are sometimes necessary and desirable. Some blind and partially sighted children may need adaptations and special techniques since they use touch instead of vision. Many visually handicapped children do not participate in a wide range of community recreational activities because of the attitudes of people about them, not because of their partial or total loss of vision. Since this problem has been discussed (pp. 7-11), it remains only to point out that the attitudes of visually handicapped children and their families are basic factors in determining success or failure in recreational activities.

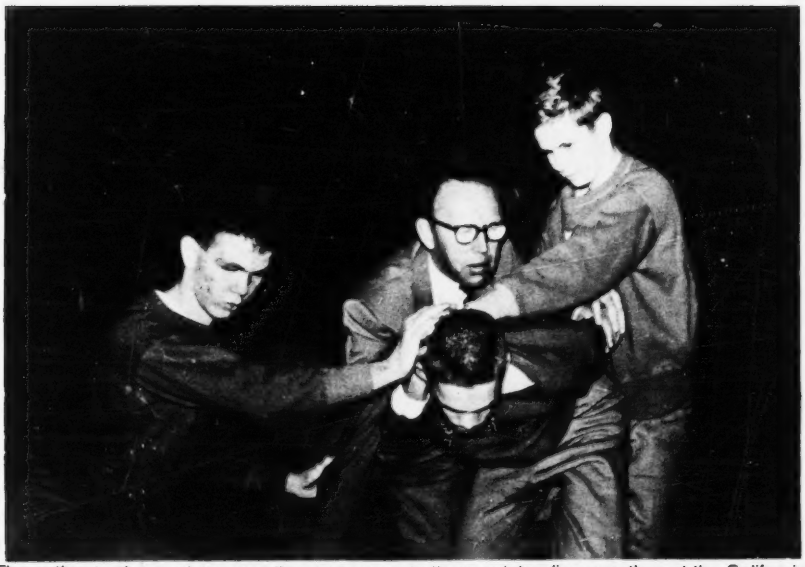
A blind child's participation in recreational programs is largely determined by the adjustment he and his family make to the condition. Professional workers recognize the right of a child and his family to decide the activities, if any, in which he will participate. Certainly recreation personnel should offer guidance and encouragement but final decisions should be made by the child and his family.

Participation in recreational activities is just as important, if not more so, for blind or partially seeing children as for their peers with normal vision. These programs and their objectives are essentially the same for impaired, disabled, and handicapped children as for non-afflicted youngsters. The sense of confidence gained from skills developed during participation in recreational activities as a child enables individuals with handicapping conditions to live happier, more useful lives as adults. If children with handicapping conditions are to have well-developed personalities, they must work and play with physically normal individuals; they must have friends and feel there is a place for them.

Families, teachers, and recreation personnel assist visually impaired children to become useful, happy members of the community by putting into practice common sense approaches. Social experiences cannot be satisfactory when one individual pities, patronizes, or lacks respect for another. To be successful, the approach must be objective, not emotional. Visually handicapped children should be treated as human beings of worth, dignity, and ability — not as blind boys and girls.

Since visually handicapped children live in a world geared to sighted people, they should be integrated into recreational programs of public schools as well as those sponsored by community organizations and clubs. In these programs youngsters gain much more by participating than by being spectators. It is so easy to assign the latter role to a visually impaired child.

A number of activities are mentioned in this chapter as suitable for visually handicapped children; such a list is far from all-inclusive. Not



The author is shown giving wrestling instruction to three outstanding wrestlers at the California School for the Blind, Berkeley.

all blind or partially sighted children enjoy or benefit from all of these activities. Music is considered by some specialists as an ideal activity for sightless individuals. Some visually handicapped children have talent in and enjoy music while others care little for it. Since people with handicapping conditions differ from each other as do other human beings, activities must be based on the likes and dislikes of the participants rather than on preconceived notions of what others think blind people ought to enjoy. Individual differences must be recognized and emphasis placed on ability rather than disability.

Adjustment to an impairment depends primarily upon an individual's innate makeup and the effect of the environment upon his personality. If a blind child does not perform adequately in various activities, it is useless to try to bring him up to normal by indiscriminately inducing him to fill idle time with more and more participation. An individual may be enticed into many activities and still remain unhappy and poorly adjusted. Participation in more recreational activities is not the answer; the key is appropriate action conducted under conditions that stimulate growth in social adjustment and emotional stability.

Recreational Activities of Agencies for Blind Children

In many large metropolitan areas of the United States certain agencies for blind persons offer children varied recreational programs. However, in most of these programs blind children participate together, separated and segregated from children with normal vision. While such programs

may fill certain needs of children who lack the background, experience, motivation, or ability to participate successfully in community recreational programs, a major goal of these agencies should be to develop each blind child to the point where he can leave the special program and participate in community programs. Agency personnel need to help families of visually impaired youngsters develop methods of constructively utilizing community resources.

Encouragement and understanding are qualities that agency workers must constantly keep in mind. If a family feels an agency is not committed to the above goals — helping the child become as independent as possible — it should consider withdrawing the child from the program. Some children benefit from separate agency programs while others do not.

Braille Trails

Park officials in a number of states and localities have placed along nature trails pedestals with affixed Braille metal plaques describing trees, bushes, leaves, etc. Usually a rope is strung from post to post alongside the trail so a blind person can guide himself. Such a specially constructed trail tends to perpetuate the stereotype of the helpless blind person.

It is much more to the point to construct a trail which all nature lovers, including those who are blind, can use together. Instead of Braille plaques, a trail should be outfitted with tape-recorded cassette or reel playbacks describing specimens. Such a trail need not have guiding devices for blind persons. A blind person can pair-up with a sighted companion as he would on any hike in the mountains. This is also the position of the American Foundation for the Blind.

Role of Parent or Recreation Personnel

Not all blind children are eager to discover and participate in new activities. A child who has been relatively inactive may be afraid that an activity is too dangerous or difficult to learn, or he may fear the reactions of sighted children to him or he may have doubts about his ability to keep up. Such a child needs a great deal of understanding, encouragement, and support from professional workers, friends, and family. Frank discussions of all fears and doubts should be carried on as long as they appear helpful. It may be desirable to give individual instruction and let a child practice certain skills that will be needed in an activity. For example, a blind child whose ice or roller skating skills are below those of sighted children in a skating group he wishes to join, can be given special or pre-instruction and encouraged to seek additional practice. Obviously a child should not be permitted to join an integrated activity until he can participate safely, successfully, and with personal satisfaction. Adults need to help each child develop his skills and overcome negative feelings about trying and taking part in recreational activities. Once this has been accomplished, a blind child can select activities which he enjoys and which strengthen his capacity to live life to its fullest.

The best friend a visually handicapped child can have is one who has an open mind and is enthusiastic about helping him succeed in community recreational activities. Such a friend seeks information from various sources such as scouting organizations, boys' and girls' groups, agencies for blind persons, and private and public associations. He makes arrangements for a visually impaired child to enter groups of the youngster's choice. If a group has never had a blind member and is reluctant to let one join, it is up to the parent or recreation specialist to convince the members. He should be specific in how a blind person can participate in the group's activities. For example, if it is a card club, he can point out that blind persons use Braille playing cards. For a group of bowlers, he can mention the guide rails used by many sightless bowlers. Templates used to pound out designs on leather or metal can be mentioned to a craft group. To help sighted members of a group feel at ease with a blind person, one can outline and discuss points of courtesy (page 11).

Recreation specialists and parents should not get bogged down in medical or psychological evaluations of visually handicapped participants. It is better to let an individual show what he can do rather than work from previously set limitations which are usually based on false preconceptions. One should make use of some consultation but not let it overshadow and dictate the child's entire program.

Each impaired, handicapped, or disabled child shou be encouraged to do as much as possible for himself. Successfully completing practical tasks brings confidence to any child, particularly one with a handicapping condition. Too often these children have learned to receive much more than they have been taught to give.

Neighborhood Activities

Neighborhood recreational activities may be divided into those which are commercial, civic, organizational, and of low organization. There is a place for visually impaired children in each of these types of activities.

Commercial Activities. Blind children enjoy attending sporting events and motion pictures. If a sporting event is broadcast, a blind child can take along a transistor radio and listen; otherwise a sighted companion can give a running commentary. Band music, crowd reactions, hot dogs, soft drinks, and the thrill of being present at an exciting contest mean much to anyone. At a motion picture some scenes require a brief description from a companion. Some films are more suitable for blind viewers than others since dialogue is preferred to cartoons and slapstick comedy.

Concerts and the theater present no problems for visually impaired persons. Most concessions at carnivals, fairs, and playlands can be fully enjoyed by blind youngsters depending, of course, on their age and readiness for specific activities.

Civic Activities. Civic offerings in a neighborhood usually include activities in parks, museums, zoos, etc. A sighted companion can give descriptions at a zoo or museum; sometimes those in charge permit blind children to touch animals or specimens. Some places have keys for sale that turn on descriptive records. Boating, skating, swimming, bowling,

horseback riding, surfing, cycling, pedal boating, water skiing, and other physical activities are described in more detail on pages 41-50.

Organization Activities. Most organizations found in a neighborhood have much to offer blind children. Many visually impaired youngsters participate in dramatics, crafts, dancing, and other physical and recreational activities at YMCAs-YWCAs, Boys Clubs, and Future Farmers of America programs. Many more children need to take advantage of opportunities and participate in these programs. Cub Scouts, Boy Scouts, Girl Scouts, and Campfire Girls have handbooks available in Braille and large print. These organizations have recently revised badge requirements by including more options so that modifications are no longer necessary for visually handicapped boys and girls. The Boy Scouts have prepared a booklet entitled *Scouting For the Visually Handicapped*, and the Girl Scouts have *Handicapped Girls Girl Scouting: A Guide For Leaders*. The Scouts are eager to serve blind and partially seeing boys and girls. A parent or adult friend of a blind child can do a service for his community and the child by sponsoring a club or becoming a committee member of a scouting group.

Most neighborhoods have interest groups, primarily for teen-agers. Formal and informal clubs in amateur radio, science, chess, homemaking, and other interests have much to offer members, including those who are visually impaired. Recreational groups in churches have long been receptive to blind and partially seeing members. In these groups an impaired, disabled, or handicapped individual usually becomes acquainted quickly and soon feels he really belongs to the group.

Low Organization Activities. In low organizational activities, an understanding parent is most helpful in paving the way. A mother of a blind child can invite neighborhood children to her home for various activities. As time goes on the blind child will be invited to others' homes. At these gatherings a visually handicapped child who has a pleasing personality or a musical or athletic skill will be particularly welcome.

For games suitable for blind and sighted children, Buell's *Recreation For the Blind* is helpful. (See bibliography, page 57.) However, any game book and many elementary or secondary school physical education tests or special activity publications contain games and related activities suitable for visually impaired players.

A wise parent can find many ways to involve his visually impaired child in neighborhood activities without interfering with the interests of others. Understanding the effects of blindness and having complete confidence in the child's abilities are keys to such an approach. Usually a parent and his child must take the initiative and not expect neighbors to come to them. Consultation with personnel experienced in working with visually impaired children is helpful.

Family Activities

A blind person has enough problems without having his development interfered with by emotional or uninformed parents. A child can attain normal social development by playing and working with others, not by

being alone. Some parents let their visually handicapped children listen to radio, television, tapes, and records hour after hour while other members of the family participate in a variety of recreational activities. A blind child who is denied play opportunities often retreats into fantasy; he learns little about the world, what is real and what is not. His needs for exercise and companionship are denied him. If this practice is continued for years during childhood, it is extremely difficult, if not impossible, for such an individual to have and maintain normal social relationships as an adult. Parents of blind children want their offspring to grow into useful and happy adults. It is unfortunate that some parents do not have sufficient knowledge or emotional maturity to assume their responsibilities because help is available and should be sought.

A blind child needs to be included in family activities just as much as his siblings. Some mothers, for example, leave their blind children in an automobile while they shop. Think what a blind child can learn by touch in a grocery, hardware, or variety store.

Table games are possible for blind youngsters but often need some modifications. Braille playing cards and dominoes with raised spots are used. Checkers and chess are played on boards with raised squares; checkers are round and square, while chess figures are identified by pins on top to differentiate between the two sides. These and other table games can be purchased from the American Foundation for the Blind, New York City.

Every family should camp together; blind children enjoy this greatly. They also look forward to trips to snowy areas for winter sports. Fishing is just as popular with blind individuals as for anyone else. The companionship and exhilarating feeling of being in the open and other features of hiking appeal to all boys and girls, including those with visual impairments.

Don't discard sightseeing and tours. An individual does not need vision to be thrilled by standing on a spot where history was made.

Most children yearn to do simple cooking; a wise mother includes her visually impaired child in this activity. Blind boys and girls should be encouraged to care for a pet or plant a simple garden. Other activities commonly engaged in by visually impaired children include leathercraft, weaving, ceramics, woodwork, and needlecraft.

In view of the availability of such a wide variety of recreational and leisure-time activities, there is no logical reason for visually impaired persons to miss the normal pleasures and physical, mental, and social stimulation gained from active participation in these activities.

Part III

ANNOTATED BIBLIOGRAPHY

The first section of this bibliography lists publications and films dealing with specific activities as well as methods of organization, programs, and teaching various activities. Organizations to write for additional information also are listed.

The references in the second section (pages 66 and 67) have been selected for their value in understanding the education and problems of visually handicapped persons.

General Listings

BOOKS AND PAMPHLETS

American Foundation for the Blind. *Integrating Blind and Visually Handicapped Youths into Community Social and Recreational Programs.* New York: the Foundation, 1972.

This how-to-do-it pamphlet explains what the leader should know about blind children, how to prepare sighted children in the group for the presence of a blind child, and what adaptations the blind child might need.

_____. *Recreation and the Blind Adult.* New York: the Foundation, n.d.

_____. *Recreation for Blind Persons.* New York: the Foundation, (Bibliography).

Arnheim, D.; Auxter, D.; and Crowe, W. *Principles and Methods of Adapted Physical Education.* St. Louis: C.V. Mosby, 1969. 419 pp.

Attention is given to background information on impairments, disabilities, and handicaps, and comparatively little space is devoted to activities. Suitable for college classes.

Barnett, Marian Weller. *Handicapped Girls Girl Scouting: A Guide for Leaders.* New York: Girl Scouts of America, 1968.

Belenky, Robert. *A Swimming Program for Blind Children.* New York: American Foundation for the Blind, 1955. 44 pp.

This is the most complete reference available on swimming for blind children.

Bowling for the Blind. Washington, D.C.: The American University in conjunction with the American Blind Bowling Association, 1971.

Boy Scouts of America. *Scouting for the Visually Handicapped.* New Brunswick, N.J.: BSA, 1968.

Scout leaders will find this pamphlet very helpful.

Buell, Charles. *Active Games for the Blind.* Ann Arbor, Mich.: Edwards Brothers, 1953. 73 pp.

_____. *Motor Performance of Visually Handicapped Children.* Ann Arbor, Mich.: Edwards Brothers, 1950. 125 pp. (Out of print. Summary available from author.)

A study involving 865 children in public and residential schools is described in this doctoral dissertation.

_____. *Physical Education for Blind Children.* Springfield, Ill.: Charles C. Thomas, 1966. 224 pp.

This is the only complete book available on the subject. It covers sports, games, relays, races, contests, achievement scales, and curriculum.

———. *Recreation for the Blind*. New York: American Foundation for the Blind, 1951. 40 pp.

Detailed descriptions of activities for visually handicapped children make up this booklet.

———. *Sports for the Blind*. New York: American Foundation for the Blind, 1947. 240 pp.

Case, Maurice. *Recreation for Blind Adults*. Springfield, Ill.: Charles C. Thomas, 1966. 208 pp.

Many activities described for adults in this book can be used for youth groups.

Cratty, B. J. *Movement and Spatial Awareness in Blind Children and Youth*. Springfield, Ill.: Charles C. Thomas, 1971. 240 pp.

The text contains clinical observations and research evidence which lead toward appropriate educational measures to aid blind children to move and deal with space more effectively.

Cratty, B. J. and Sams, T. A. *The Body Image of Blind Children*. New York: American Foundation for the Blind, 1968. 72 pp.

The booklet presents research evidence which can be used by physical educators of blind children as a basis to organize training programs in space concepts and body image.

Daniels, A. S. and Davies, E. A. *Adapted Physical Education: Principles and Practice of Physical Education For Exceptional Students*. New York: Harper & Row, 1965. 547 pp.

Organization, administration, curriculum, class and individual techniques in physical education for exceptional children, including those who are blind, are considered.

Fait, Hollis. *Special Physical Education: Adapted, Corrective, Developmental*. Philadelphia: W. B. Saunders, 1972. 440 pp.

One chapter of the book is devoted to physical education of the visually impaired child. Since some blind children are multiply handicapped, the other deviations discussed will be of value.

Frampton, M. and Mitchell, P. *Camping for Blind Youth*. New York: New York Institute for the Blind, 1949. 139 pp.

Hunt, Valerie. *Recreation for the Handicapped*. Englewood Cliffs, N.J.: Prentice-Hall, 1955.

Pages 78 and 79 are devoted to recreation for blind children.

Knorr, John. *A United States Guide to Nature Centers and Trails for the Visually Handicapped*. Madison, Wis.: University of Wisconsin (Center for Environmental Communications and Education Studies, 602 State St.). Jan. 1973.

Lende, Helga. *Books about the Blind*. New York: American Foundation for the Blind, 1953. 357 pp.

Those seeking references on physical education of the blind which appeared before 1953 will find the book helpful.

Miedena, Jan. *Some Aspects of Physical Education for the Blind*. Washington, D.C.: American Association for Health, Physical Education, and Recreation, 1955.

This is a report of the International Congress on the Essentials of Physical Education for Youth, Connecticut Valley, Connecticut, April, 1954.

Peripatology for the Blind. (An ERIC-generated annotated bibliography). Boston, Mass.: New England Materials Instruction Center (704 Commonwealth Ave. NE).

Physical Education and Recreation for the Visually Handicapped. East Lansing, Mich.: Michigan State University, 1967. 223 pp.

This is a report of a two-week workshop which drew 60 participants from all parts of the United States.

Physical Education for Visually Handicapped Children. Raleigh, N.C.: Governor Morehead School, 1965.

Pomeroy, Janet. *Recreation For The Physically Handicapped.* New York: Macmillan, 1964. 382 pp.

The basic approach is to discuss activities, mentioning modifications for handicapped individuals from time to time, including those who are blind.

Ritter, Charles. *Hobbies For The Blind.* New York: American Foundation for the Blind, 1953. 52 pp.

A wide variety of hobbies for blind adolescents and adults is covered in detail.

Seamons, Gloria. *Swimming For The Blind.* Provo, Utah: Office of Publications, Brigham Young University, 1966. 42 pp.

This publication is based on questionnaire replies and teaching swimming to a few blind teen-agers.

Sequenced Instructional Programs in Physical Education for the Handicapped. Los Angeles: Los Angeles City Unified School District, 1970. 336 pp.

This practical guide is for public school physical educators who have handicapped children in their classes. A basic assumption of the book is that physical education and recreation for various groups of handicapped children is more alike than different from programs for children who have no impairments. Reference is made to a specific handicap, including visual impairment, only when it is necessary to modify an activity. Dorothy Carr was the principal investigator and Charles Buell acted as a consultant for the visually handicapped.

Wheeler, R. H. and Hooley, A. M. *Physical Education For The Handicapped.* Philadelphia: Lea & Febiger, 1969. 352 pp.

Information is very general in nature. Seven pages are devoted to visually impaired individuals.

ARTICLES

Allen, Griffin. Physical education and blind children from the viewpoint of ophthalmology. In *Proceedings of the Workshop For Integrating Blind Children with Sighted Children into Ongoing Physical Education and Recreation Programs.* Cleveland: Cleveland Society for the Blind, 1968.

The author gives guidelines on how to be reasonably cautious of eye injuries.

Blind summer camp. *Cosmopolitan* 141: 48-49, August 1956.

Bolt, Martha. The blind can play softball. *JOHPER* 41:40, June 1970.

The author relates ways in which blind students were integrated into softball games in a high school.

Boninger, Walter B. ed. What do you say to a kid who can't see? In *Proceedings of the Special Demonstration Workshop for Integrating Blind Children with Sighted Children into Ongoing Physical Education and Recreation Programs.* Cleveland: Cleveland Society for the Blind, 1968.

Briller, S. and Morrison, B. Teaching rock and roll dancing to totally blind teenagers. *New Outlook for the Blind,* April 1971.

The experiences of an agency for the blind are described. Schools can also benefit from the information.

Bronnson, George. Visually handicapped persons play baseball. *The CCB Outlook,* pp. 20-22, April 1972.

Brothers, Roy. Stimulating learning through physical activity. In *Proceedings of the Association for the Education of the Visually Handicapped,* pp. 49-60, AEVH, 1968.

Kephart's outline on perception and motor efficiency is combined with suggestions of physical activities for blind children, particularly those who are multiply handicapped.

Buell, Charles. Blind champions. *Recreation,* 477-478, Jan. 1948.

_____. Camping facilities in the United States for the adult blind. *Proceedings of the American Association of Workers for the Blind*, 1959, pp. 205-208. Washington, D.C.: American Association of Workers for the Blind.

_____. Cubbing at the California School for the Blind. *Outlook for the Blind* 66, March 1953.

_____. Cubbing at the Michigan School for the Blind. *Outlook for the Blind* 20, Jan. 1946.

_____. Developments in physical education for blind children. *New Outlook for the Blind*, 202-206, Sept. 1964.

_____. Guiding principles for recreation for blind adults, *Proceedings of the American Association of Workers for the Blind, 1953*, pp. 89-94. Washington, D.C.: American Association of Workers for the Blind.

_____. Hiking aids physical and mental growth of blind children. *New Outlook for the Blind*. May 1965.

_____. How can residential schools for the blind improve the socialization of pupils. *International Journal for Education of the Blind*, 222-223, Dec. 1953.

_____. How to include blind and partially seeing children in public secondary school vigorous physical education. *The Physical Educator*, March 1972.

A veteran physical educator describes modifications for blind participants in softball, track and field, volleyball, physical fitness testing, etc. in public schools. The author also emphasizes that most physical education activities need no modification for the visually handicapped.

_____. Is vigorous physical activity feasible for blind children in public schools? *Journal of Health, Physical Education, Recreation* 40:97-98, Feb. 1969.

To show the capabilities of blind individuals, wrestling champions and letter winners in other sports are mentioned.

_____. Mass wrestling. *Outlook for the Blind*, pp. 259-260, Nov. 1947.

_____. Motor performance of visually handicapped children. *Journal of Exceptional Children* 17:3: 69-72, Dec. 1950.

_____. Outdoor education in a school for the blind. *Journal of Exceptional Children*, 266, April 1956.

_____. Physical education for blind children in public schools. *New Outlook for the Blind*, pp. 248-255, Oct. 1967.

_____. Physical education for visually handicapped children. *JOHPER* 42:63-64, April 1971.

Many practical hints are given on how to integrate blind children into public school physical education programs.

_____. Physical education in the California School for the Blind. *Outlook for the Blind*, pp. 95-97, May 1936.

_____. Physical fitness testing in a school for the blind. *Outlook for the Blind*, pp. 280-282, Dec. 1945.

_____. Recreational and leisure-time activities of blind children. *International Journal for the Education of the Blind*, March 1962.

_____. Recreation and physical education for the blind. *Recreation*, pp. 435-436, Oct. 1940.

_____. Recreation for blind adults — a survey. In *Proceedings of the American Association of Workers for the Blind*, pp. 164-166, 1957. Washington, D.C.: The Association, 1957.

_____. Social experiences for blind children in residential schools. In *Proceedings of the American Association of Workers for the Blind*, pp. 159-160, 1957. Washington, D.C.: the Association, 1957.

_____. Ten active games for blind children. *International Journal for Education of the Blind*, pp. 62-64, March 1955.

_____. The blind can play. *American Boy*, p. 24, Oct. 1939.

_____. The Navy testing program in schools for the blind. *Outlook for the Blind*, pp. 78-79, March 1947.

_____. The recreation program at the Washington School for the Blind. *Outlook for the Blind*, pp. 16-18, Sept. 1941.

_____. The status of physical education for visually handicapped children. In *Physical Education and Recreation for Handicapped Children: A Study Conference on Research and Demonstration Needs*, 1969. (Washington, D.C.: American Association for Health, Physical Education, and Recreation and the National Recreation and Park Association, 1969.)

This article provides an up-to-date summary of information from the field.

_____. What are the possibilities of organizing a better track meet? In *Proceedings of the American Association of Instructors of the Blind*, pp. 172-174, 1948. Philadelphia: Association for the Education of the Visually Handicapped, 1948.

_____. What is the school's responsibility in providing physical activity for its blind students? *JOHPER* 41:41-42, June 1970.

The author's reply is that public schools which are not already doing so should offer blind children as much vigorous physical education as is given to their sighted peers. Practical suggestions of how this is being done in some schools are given.

_____. Wrestling in the life of a blind boy. *International Journal for Education of the Blind*, pp. 93-96, March 1958.

Carroll, T. J. New techniques in training the blind. *Journal of the Association for Physical and Mental Rehabilitation* 10: 6, Jan. 1956.

Case, Maurice. Camping for blind adults. *Recreation* 46A: pp. 104-106, May 1953.

Citron, Lester. Tin cans and blind kids. *JOHPER* 42:64 April 1971.

Although blind boys have played games with tin cans rather commonly, the activity is rarely reported in literature.

Cratty, B.; Peterson, C.; Harris, J.; and Schoner, R. The development of perceptual-motor abilities in blind children and adults. *New Outlook for the Blind*, April 1968.

Curran, E. A. Teaching water safety skills to blind multi-handicapped children. *Education of the Visually Handicapped*, March 1971.

Inner tubes were used to eliminate undue fear. Gradually the inner tubes were deflated as the endurance of the children increased. A practical program is described in some detail.

Duggar, Margaret P. What can dance be to someone who cannot see? *Journal of Health, Physical Education, Recreation*. 39:28-30, May 1968.

Methods for teaching blind children to dance are suggested; also explained are methods of developing spatial awareness, body awareness, and rhythmic perception, and of using instruments for matching quality of sound and motion.

English, Bill. A program of dance for visually handicapped young people. *International Journal for the Education of the Blind*, March 1958.

Field, David. Blind on horseback. *Journal of Rehabilitation*, July-Aug. 1964.

This article describes an activity in which many blind individuals participate.

Fisher, David. Blind students learn Karate. *Journal of Rehabilitation* 38:4, July-August 1964.

The author, who holds the rank of first degree Black Belt, realized that the training sequences in karate depended on concepts similar to those employed in perceptual-motor training. The karate training exercises aid in the development of kinesthetic awareness and could be of special value to the blind who often have problems related to balance, posture, and coordination.

Forman, Edward. The inclusion of visually limited and blind children in a sighted physical education program. *Education of the Visually Handicapped*, pp. 113-115, Dec. 1969.

The program of a Philadelphia school is described. Some of the activity limitations mentioned should be evaluated in the light of experience in the field.

Furst, Terry. Competitive team organization. *International Journal For the Education of the Blind*, May 1968.

A motivational technique used with blind adults who are multiply handicapped is described. It might prove successful with younger individuals.

Haliczer, S. L. Physical education tests for boys. *International Journal for the Education of the Blind*, May 1959.

Hanneman, Ralph. Bicycles provide recreation opportunities for the blind. *New Outlook For the Blind*, Feb. 1968.

This is a short report which gets to the point.

Hatlin, P. H. Physical education for the visually handicapped. *International Journal For the Education of the Blind*, Oct. 1967.

The article is based upon experiences in a resource room in a public school.

Hayes, Harold. Sailing blind. *The New Beacon*. Dec. 1970. (Royal National Institute for the Blind, 224 Great Portland St., London, England).

Huffman, Mildred B. A call for recreation. *New Outlook for the Blind* 55:3:86-89, March 1961.

Hutchins, J. M. Camping for blind children. *Camping Magazine* 25:23, March 1953.

Hyman, Dorothy. Teaching the blind student archery skills. *Journal of Health, Physical Education, Recreation* 40:85-86, April 1969.

A college instructor describes her experience with one blind student.

Ingram, Anne G. Children with impaired vision are "seeing" through touch. *Journal of Health, Physical Education, Recreation* 40:95-97, Feb. 1969.

A short description of a public elementary school program is presented.

Johansen, Gladys. Integrating visually handicapped children into a public elementary school physical education program. *JOHPER* 42:61-62, April 1971.

A teacher describes the goals of such a program and tells how they can be attained. Many practical hints are given.

Johnson, Philip. Physical education for blind children in public elementary schools. *New Outlook for the Blind*, pp. 264-271, Nov. 1969.

Hints are given for conducting an integrated program.

Joy, H. E. The activity approach to the training of the blind. *Journal of the Association for Physical and Mental Rehabilitation* 8:2:42, March 1954.

Lowery, Sharene. Rebound tumbling for the visually handicapped. *International Journal for the Education of the Blind*, Dec. 1960.

Experiences with rebound tumbling for blind children are related.

Marshall, W. D. A practical physical orientation and foot travel program for the blind in a community. *Journal of the Association for Physical and Mental Rehabilitation* 9:4:130, July 1955.

McDade, P. R. The importance of motor development and mobility skills for the institutionalized blind mentally retarded. *New Outlook for the Blind*. LXIII (10): 312-317. Dec. 1969.

On the basis of a systematic orientation and mobility program with 33 blind mentally retarded children enrolled, it was concluded that between 20 and 40 percent could profit from such a program.

Miller, Oral. Blind bowling. *JOHPER* 42:59-61, April 1971.

Thousands of blind individuals, young and adult, bowl. A portable guide rail is commonly used. The author is the secretary of the American Blind Bowling Association.

New dimensions for blind youngsters. *Today's Health* 47: Jan. 1969.

The children's recreation program of a typical agency for the blind is described.

Nezon, James. Physical education for integrated blind students: Its relationship to sociometric status and recreational activity choices. *Education of the Visually Handicapped*, March 1972.

A study is described of which the major finding is that blind students who participate in vigorous physical education in public schools are more widely accepted among their sighted peers than are sedentary visually handicapped boys and girls.

Oliver, James. Physical education for blind children. *JOHPER* 41:37-39, June 1970.

The article emphasizes the similarities of physical education for blind and sighted children. Where modifications are needed, practical suggestions are made.

Pascal, A. Sports for the blind. *Journal of the Association for Physical and Mental Rehabilitation* 2:2:13-14, Oct. 1948.

Pearson, Kathleen. Taking a new look at physical education. *New Outlook for the Blind*, Nov. 1965.

Pomeroy, Janet. Recreation for severely handicapped persons in a community setting. *New Outlook for the Blind*, Feb. 1972.

A wholesome philosophy toward all handicaps is developed. A leader in the field shows how it forms the basis for an active recreational program.

Presentation of gymnastics to blind children. *Teacher of the Blind*, April 1965.

In this English publication, free gymnastics (a child chooses his own movements) is discussed.

Rachun, Alexius. Vision and sports. *Sight Saving Review* 38:4.

The author tells of his experience with myopic and other visually handicapped athletes at Cornell University. Myopia does not lead to loss of vision in contact sports, except possibly in its most progressive form. The opinions expressed concerning partially seeing boys, and those who have vision in one eye, participating in contact sports have not been confirmed by long experience in schools for the blind.

Resnick, Rose, Recreation: A gateway to the seeing world. *New Outlook for the Blind*, Nov. 1971.

Discussed are hiking, nature study, swimming, rowing, sports and games, folk dancing and social dancing, dramatics, music, and their implications for personal and social growth in a sighted world.

Richterman, H. Orientation and foot travel at the industrial home for the blind. *Journal of the Association for Physical and Mental Rehabilitation* 3:11-15, April 1949.

Siegel, Erwin. Postural compensation in the motor-handicapped blind. *New Outlook for the Blind*, Dec. 1967.

Ways of overcoming malposture are shown through case studies.

_____. Selected athletics in a posture training program for the blind. *New Outlook for the Blind*, Oct. 1966.

The discussion shows how fencing, skiing, and ice skating are used to increase the postural efficiency of blind youth.

Tait, Perla. Behavior of young blind children in a controlled play session. *Perceptual and Motor Skills* 34:3: 963-969, June 1972.

Purpose of the study was to compare the play behavior of blind children (age range four to nine years) with that of sighted peers.

Travena, Thomas. Are physical education programs meeting the needs of students? *JOHPER* 41:42-43, June 1970. (Also in *The Physical Educator*, May 1970.)

The writer suggests ways in which blind children can be integrated into regular physical education classes in public schools. The feeling is that too many blind children are placed in classes for adapted physical education.

Turner, R. and Biblarz, A. Blind people can do more than tread water. *Braille Monitor*, Nov. 1971. (National Federation of the Blind, 2652 Shasta Rd., Berkeley, Calif. 94708).

The authors give first-hand information on techniques used by blind swimmers to safely scuba dive. A few have become professionals.

Twersky, J. A part of my life: Camp for blind children. *Recreation* 46:137-138, June 1952.

Umsted, R. G. Enhancement of the function of the visually handicapped through physical education and physical development. *Proceedings, Association for the Education of the Visually Handicapped*, pp. 40-48, 1968.

The writer emphasizes goals in physical education and mobility, particularly for the multiply handicapped blind child.

Waffa, Joseph. Fencing as an aid to the rehabilitation of blind persons. *New Outlook for the Blind*, Feb. 1963.

Watney, John. Sailing blind. *The New Beacon: The Journal of Blind Welfare*, pp. 311-314, Dec. 1970.

Weber, Josie. Playground for special children. *Texas Magazine* (*Houston Chronicle*), pp. 7-11, March 16, 1969.

Whitney, E. D. and Walters, G. T. Cooperative camping: golden-agers and blind campers at camp. *Recreation* 49: 291, June 1956.

Wienke, Phoebe. Blind children in an integrated physical education program. *New Outlook for the Blind*, March 1966.

A public school physical educator makes suggestions based upon her experience with blind children.

Williams, Neil F. Physical education adapts to the visually handicapped. *JOHPER* 35:3:25, March 1964.

Williams, R. C.; Gruber, K.; and Bledsoe, C. Physical medicine rehabilitation of the blind. *Journal of the Association for Physical and Mental Rehabilitation* 4:1:10-11, Feb. 1950.

Wilson, John. The blind climbers of Kilimanjaro. *The Seer*, Sept. 1970. (Pennsylvania Association for the Blind, 2843 N. Front St., Harrisburg, Pa. 17110).

Seven blind climbers and four sighted guides scaled the famous mountain to focus the public's attention on the abilities of visually handicapped individuals.

Wood, T. Highbrook: Vacation camp for blind persons. *Rehabilitation Teacher*. II (3): 3-14. March 1970.

Highbrook Lodge, an Ohio camp for blind children and adults, is described and information provided on activities.

FILMS AND SLIDES

Physical Education for Blind Children. 16 mm, sound, color, 20 min. Campbell Films, Saxtons River, Vt. 05154.

The film shows blind children of all ages participating in a wide variety of activities in public and residential schools.

Physical Education of the Blind, 35mm color slides. Perkins School for the Blind, Watertown, Mass. 02172.

Vim, Vigor and the Visually Handicapped. 16 mm, sound, b&w, 15 min. Illinois Braille and Sight Saving School, Jacksonville, Ill. 62650.

BOOKS AND MAGAZINE FOR VISUALLY HANDICAPPED STUDENTS

The following publications are available in Braille and large type from the American Printing House for the Blind, 1839 Frankfort Ave., Louisville, Kentucky 40207.

Physical Education for High School Students (1955, American Association for Health, Physical Education, and Recreation)

The Boys' Book of Physical Fitness (Hal Vermes)

The Girls' Book of Physical Fitness (Jean Vermes)

Teen-Time. Free subscriptions available in Braille and large type from Concordia Publishing House, 3558 South Jefferson Ave., St. Louis, Mo. 63110. A column, *The Sports Trail,* edited by Charles Buell, is devoted to blind athletes.

ORGANIZATIONS

Adventures in Movement, 945 Danbury Rd., Dayton, Ohio 45420.

American Association for Health, Physical Education, and Recreation, Programs for the Handicapped, 1201 16th St., N.W., Washington, D.C. 20036. *Journal of Health, Physical Education, Recreation.* Published nine times annually. Bibliography and other information on activities for the visually handicapped are available free of charge.

American Association of Workers for the Blind, 1511 K St., N.W., Washington, D.C. 20005.

American Blind Bowling Association, Box 306, Louisville, Ky. 40201.

American Foundation for the Blind, 15 W. 16th St., New York, N.Y. 10011. *New Outlook for the Blind.* Published monthly. A catalog of the Foundation's publications (many pamphlets and some books) is available.

American Junior Blind Bowling Association, Charles Buell, 4244 Heather Rd., Long Beach, Calif. 90808.

American Printing House for the Blind, 1839 Frankfort Ave., Louisville, Ky. 40206.

Association for the Advancement of Blind Children, 89-14 Parsons Blvd., Jamaica, N.Y. 11432.

Association for the Education of the Visually Handicapped, 1604 Spruce St., Philadelphia, Pa. 19103. *Education of the Visually Handicapped* and *Bulletin for Physical Educators of the Blind.* (formerly *International Journal for the Education of the Blind*). Published quarterly. A bibliography on physical education for the visually handicapped is free; other information also is available.

The Canadian Council of the Blind, national office, 96 Ridout St. South, London, Ontario, Canada.

The Canadian National Institute for the Blind, British Columbia, Yukon Division, 350 East 36th Ave., Vancouver 152 British Columbia.

Educational Resources Information Center, c/o Council for Exceptional Children, 900 Jefferson Plaza, 1411 Jefferson Davis Highway, Arlington, Va. 22202.

Foundation for the Junior Blind, 5300 Angeles Vista Blvd., Los Angeles, Calif. 90043.

Instructional Materials Reference Center for Visually Handicapped Children, 1839 Frankfort Ave., Louisville, Ky. 40206.

Lions Clubs. Contact local, state, and regional affiliates.

National Foundation of the Blind, Inc., 1908 Q St., N.W., Washington, D.C. 20009.

National Society for the Prevention of Blindness. 79 Madison Ave., New York, N.Y. 10016. *The Sight-Saving Review.* Published quarterly. Information is available on incidence, causes, and prevention of blindness.

National Therapeutic Recreation Society, 1601 N. Kent St., Arlington, Va. 22209. *Therapeutic Recreation Journal* and *Therapeutic Recreation Annual.*

National Track and Field Committee for the Visually Impaired, Charles Buell, 4244 Heather Rd., Long Beach, Calif. 90808.

Recreation Center for the Handicapped, Great Highway near Sloat Blvd., San Francisco, Calif. 94132.

Royal Institute for the Blind, 224 Great Portland St., London, W. 1, England.

Special Education Instructional Materials Center Network (including regional, state, associate, and affiliate centers. Contact Donald Erickson, Coordinator, SEIMC Network, c/o Council for Exceptional Children, 900 Jefferson Plaza, 1411 Jefferson Davis Highway, Arlington, Va. 22202.

United States Blind Golfers Association, Robert G. Allman, secretary, 6338 Sherwood Rd., Philadelphia, Pa. 19151.

USOE/MSU IMC for Handicapped Children and Youth, 213 Erickson Hall, Michigan State University, East Lansing, Mich. 48823.

Education and Problems of Blind Persons

Abel, Georgie. *Concerning the Education of Blind Children.* New York: American Foundation for the Blind, 1959.

Ashcroft, Samuel. Blind and partially seeing children. In *Exceptional Children in the Schools,* Edited by Lloyd Dunn, pp. 413-453. New York: Holt, Rinehart & Winston, 1963.

Bauman, Mary and Yoder, Norman. *Adjustment to Blindness.* Springfield, Ill.: Charles C. Thomas, 1966.

Bishop, Virginia. *Teaching the Visually Limited Child.* Springfield, Ill.: Charles C. Thomas, 1971.

Bluhm, Donna. *Teaching the Retarded Visually Handicapped – Indeed They Are Children.* Philadelphia: W. B. Saunders, 1969.

Carroll, Thomas. *Blindness.* Boston: Little Brown & Co., 1961.

Cruickshank, W. and Johnson, G., eds. *Education of Exceptional Children and Youth.* 2d ed. Englewood Cliffs, N.J.: Prentice-Hall, 1967.

Dickman, Irving. *Living With Blindness.* Public Affairs Pamphlets, 381 Park Ave. S., New York, N.Y. 10016.

Hathaway, Winifred. *Education and Health of the Partially Seeing Child.* 4th rev. ed. New York: Columbia University Press, 1959.

Johnson, Isabelle. *A Blind Child Becomes a Member of Your Class.* New York: American Foundation for the Blind, 1961.

Josephson, Eric. *The Social Life of Blind People.* New York, N.Y.: American Foundation for the Blind, 1968.

Lowenfeld, B. L. *Our Blind Children.* 3d ed. Springfield, Ill.: Charles C. Thomas, 1971.

_____, ed. *The Visually Handicapped Child in School.* New York: John Day, 1972.

Lukoff, I. F. and Cohen, Oscar. *Attitudes Toward Blind Persons,* New York: American Foundation for the Blind, 1972.

Misbach, Dorothy and Sweeney, Joan. *Education of the Visually Handicapped in California Public Schools.* Sacramento, Calif.: Bureau for Physically Exceptional Children, Div. of Special Education, California State Dept. of Education, 1970. 88 pp.

Pennsylvania Department of Education. *A Guide for Parents ... Visually Handicapped Children.* Harrisburg, Pa.: Bureau of Special Education (Box 917), 1970.

Rusalem, Herbert. *Coping With the Unseen Environment.* New York: Teachers College Press, 1972.

Saul, Sidney R. Group work and integration. *New Outlook for the Blind*. 53:2:56-60 (Feb. 1959).

Step-by-Step Guide to Personal Management for Blind Persons, A. New York: American Foundation for the Blind, 1970.

Twersky, Jacob. *The Sound of the Walls*. Garden City, N.Y.: Doubleday & Co., 1959. (A biography).

BOOKS FROM AAHPER

Best of Challenge. A compilation of the best articles from *Challenge*, AAHPER's newsletter for special educators. Designed as a basic or supplementary text for college courses, and as a reference for workshops, clinics, seminars, institutes, classes, and similar in-service and pre-service programs. 1971. 224 pp. (245-25124) $3.00.

Guide for Programs in Recreation and Physical Education for the Mentally Retarded. Guidelines and suggestions for developing new programs or enriching and expanding already existing programs, including a self-evaluation procedure and format. 1968. 48 pp. (246-07972) $1.25.

Physical Activities for the Mentally Retarded (Ideas for Instruction). Instruction in activities promoting fundamental motor development and the exploration of general areas of skill; designed for use by physical education instructors, classroom teachers, parents, and recreation personnel. 1968. 137 pp. (245-07952) $2.50.

Practical Guide for Teaching the Mentally Retarded to Swim. Designed to help professionals and volunteers teach the mentally retarded to swim or to swim better. 1969. 160 pp. (245-08078) $2.50.

Programming for the Mentally Retarded In Physical Education and Recreation. Includes material on recreation and day care for the mentally retarded; a community recreation team approach to programming; play facilities and equipment; motor activities in programs for the retarded; and recreation programming for the adult retardate. 1968. 144 pp. (245-07942) $3.00.

Recreation and Physical Activity for the Mentally Retarded. Covers the objectives of recreation, brief description of mental retardation, what play can mean for the retarded, objectives and desired outcomes of programs in physical activity, organization and teaching, and suggested specific activities. Annotated bibliography of source materials. 1966. 96 pp. (246-07726) $2.00.

Resource Guide in Sex Education for the Mentally Retarded. A comprehensive guide for the educator, volunteer and parent, prepared by AAHPER and the Sex Information and Education Council of the United States. A developmental approach is utilized in order that materials can be readily selected for use with the educable or trainable child. 1971. 80 pp. (244-25134) $2.00.

Special Olympics Instructional Manual – from beginners to champions. Designed primarily to assist classroom teachers, aides, volunteers, and parents in providing fun physical education and recreation activities for mentally retarded youngsters — but equally useful for professionals in the fields of physical education, recreation, sports, and athletics. Edited by Julian U. Stein and Lowell A. Klappholz. Published jointly with the Joseph P. Kennedy, Jr. Foundation. 1972. 144 pp. (245-25322) $2.00.

Order Instructions

Personal Orders. Orders from individuals must be accompanied by payment (make check or money order payable to AAHPER.

Institutional Orders. Institutions and organizations (such as schools, colleges, libraries, and other educational groups) may elect to be billed IF their order is submitted on an official purchase order form and amounts to a minimum of $10.00. Shipping and handling charges will be added.

Quantity Discount: Orders for 10 or more copies of a single title are eligible for 20% discount.